Kent Taylor Civic Hall
Council Chambers
200 NE Second Street
McMinnville, OR 97128

City Council Meeting Agenda
Tuesday, September 13, 2022
6:30 p.m. – Executive Sessions (CLOSED TO THE PUBLIC)
7:00 p.m. – City Council Regular Meeting

Welcome! The public is strongly encouraged to participate remotely but there is seating at Civic Hall for those who are not able to participate remotely. However, if you are not feeling well, please stay home and take care of yourself.

The public is strongly encouraged to relay concerns and comments to the Council in one of three ways:
- *Email at any time up to **12 p.m. on Monday, September12th** to claudia.cisneros@mcminnvilleoregon.gov*
- *If appearing via telephone only please sign up prior by **12 p.m. on Monday, September 12th** by emailing the City Recorder at claudia.cisneros@mcminnvilleoregon.gov as the chat function is not available when calling in zoom;*
- *Join the zoom meeting use the raise hand feature in zoom to request to speak, once your turn is up we will announce your name and unmute your mic. **You will need to provide your First and Last name, Address, and contact information (email or phone) to the City.***

You can live broadcast the City Council Meeting on cable channels Xfinity 11 and 331, Frontier 29 or webstream here:
www.mcm11.org/live

CITY COUNCIL REGULAR MEETING:
You may join online via Zoom Meeting:
https://mcminnvilleoregon.zoom.us/j/81301019604?pwd=R2J3ZmE5cElhYTdmaW1FSEhBQXl6QT09

Zoom ID: 813 0101 9604
Zoom Password: 009727
Or you can call in and listen via zoom: 1-253- 215- 8782
ID: 813 0101 9604

6:30 PM – EXECUTIVE SESSIONS- VIA ZOOM AND SEATING AT CIVIC HALL (NOT OPEN TO THE PUBLIC)

1. CALL TO ORDER

2. **Executive Session pursuant to ORS 192.660 (2)(f):** To consider information or records that are exempt by law from public inspection; **pursuant to ORS 192.660 (2)(n)(d):** To discuss information about review or approval of programs relating to the security of any of the following: Telecommunication systems, including cellular, wireless or radio systems; AND **pursuant to ORS 192.660 (2)(n)(e):** To discuss information about review or approval of programs relating to the security of any of the following: Data transmissions by whatever means provided.

3. ADJOURNMENT

7:00 PM – REGULAR COUNCIL MEETING – VIA ZOOM AND SEATING AT CIVIC HALL

1. CALL TO ORDER & ROLL CALL

2. PLEDGE OF ALLEGIANCE

3. INVITATION TO COMMUNITY MEMBERS FOR PUBLIC COMMENT –
   The Mayor will announce that any interested audience members are invited to provide comments. Anyone may speak on any topic other than: a matter in litigation, a quasi-judicial land use matter; or a matter scheduled for public hearing at some future date. The Mayor may limit comments to 3 minutes per person for a total of 30 minutes. The Mayor will read comments emailed to City Recorded and then any citizen participating via Zoom.

4. ADVICE/ INFORMATION ITEMS
   a. Reports from Councilors on Committee & Board Assignments
   b. Department Head Reports
   c. May 2022 Cash and Investment Report (in packet)

5. CONSENT AGENDA
   a. Consider the Minutes of the December 3, 2020 City Council Special Called Urban Growth Boundary (UGB) Amendment Public Meeting.
   b. Consider the Minutes of the December 8, 2020 City Council Work Session & Regular Meeting.
   c. Consider the Minutes of the December 16, 2020 City Council Work Session Meeting.
   d. Consider request from Audiovine Wine Consulting, LLC dba: Approachment Wines for Primary Winery Location, OLCC Liquor License located at 1400 NE Alpha Drive.
   e. Consider **Resolution No. 2022-58**: A Resolution approving the award of a Professional Services Contract to Jacobs Engineering Group Inc. for the Public Works Water Reclamation Facility (WRF) and Conveyance System Master Plan Update, Project 2022-5.
   f. Consider **Resolution No. 2022-59**: A Resolution Approving Entering into a Contract for Cyber Security insurance with Hagan Hamilton Insurance.

6. OLD BUSINESS
   a. **(Docket G 7 – 21),** Consideration of the Planning Commission recommendation to adopt the Three Mile Lane Area Plan as a Supplemental Document to the City of McMinnville Comprehensive Plan, and amending the Comprehensive Plan, Volume II, Chapter VI, Transportation System, to add a proposal to amend the Comprehensive Plan Map.

7. ORDINANCE
   a. Consider the second reading of **Ordinance No. 5123:** An Ordinance Authorizing a City Services Charge and Declaring an Emergency.

8. ADJOURNMENT OF REGULAR MEETING

Meeting Accessibility Services and Americans with Disabilities Act (ADA) Notice: Kent Taylor Civic Hall is accessible to persons with disabilities. A request for an interpreter for the hearing impaired or for other accommodations for persons with disabilities should be made a least 48 hours before the meeting to the City Recorder (503) 435-5702 or Claudia.Cisneros@mcminnvilleoregon.gov.

ENTERED INTO THE RECORD
DATE RECEIVED: 08/30/2022
SUBMITTED BY: Glen Westlund
SUBJECT: Agenda Item 7a. City Services Charge

From: Jeff Towery
To: GlenandKarenWestlund
Cc: Claudia Cisneros; ISSTAFF
Subject: RE: 3 Mile Project and Added tax (service fee) to Utility Bill
Date: Tuesday, August 30, 2022 1:41:01 PM
Attachments: image001.png

Mr. Westlund,

Thank you for taking the time to share your views. I am confused by your initial sentence and apologize if our website was down or otherwise compromised when you were trying to contact the Council. The City Council members and their contact information can be found at:
https://www.mcminnvilleoregon.gov/citycouncil

In addition, we have a link for general inquiries at the bottom of our home page (and most other pages on the site as well):
https://www.mcminnvilleoregon.gov/contact

I don't recall whether or not you have submitted earlier comments on the 3 Mile Lane project. The record for those comments closed on August 15. I can tell you that others have raised concerns similar to yours and those have been shared with the full Council.

Your perspective on the City Services Charge will be shared with the Council. I've copied the City Recorder to ensure your comments are shared with the Council and our Information Services Team regarding the website concerns.

Thank you again for your input and your constructive criticism. We do appreciate your willingness to engage.

City of McMinnville
Jeff Towery (he/him)
City Manager
503-434-7302 (desk)

jeff.towery@mcminnvilleoregon.gov

From: GlenandKarenWestlund <glenandkarenwestlund@comcast.net>
Sent: Tuesday, August 30, 2022 12:36 PM
To: Jeff Towery <Jeff.Towery@mcminnvilleoregon.gov>
Subject: 3 Mile Project and Added tax (service fee) to Utility Bill

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Before I voice opposition to these items I need to voice my disappointment with our city council of taking their email contact information off the web page. I know they likely want to get sheltered from opposing views and the public is not always kind when they send messages they feel strong about. I feel that this is against the goals of improving communications. As a planner for the Forest Service I received hundreds of public input letters for projects I worked on. I felt it was my job to take this input, even when the language was offensive. I feel the council, as elected officials, need to be available to our input in order to represent us.

The extra $13 a month proposed as a service fee to our utility bill is also a mistake. It is not the time to propose such a grab for funds. It needs to come to the voters. We are all having to deal with inflation and do not know where it will end up. We need more time to see what is going on. I have a limited fixed income being retired but still support other nonprofit social service organizations. With every level of government asking for more money or toll for use of highways I see my cost of living increasing beyond my basic needs. I do not like that the counsel does not call it a tax because that is really what it is. Calling it a service fee that is not related at all to the utility and uses that money for other purposes seems wrong. The community is not an unlimited source of funding, which is what the council seems to feel.

Glen Westlund
2502 SW Redmond Hill Road

McMinnville, Or

CITY OF MCMINNVILLE - CASH AND INVESTMENT BY FUND
May 2022

FUND #	FUND NAME	GENERAL OPERATING CASH IN BANK	INVESTMENT	TOTAL
01	General	$1,478,335.75	$7,283,591.58	$8,761,927.33
05	Grants & Special Assessment	$936.78	$3,643,586.17	$3,644,522.95
07	Transient Lodging Tax	$159.62	($6,000.00)	($5,840.38)
08	Affordable Housing	$0.00	$1,500,000.00	$1,500,000.00
10	Telecommunications	$596.07	($23,970.00)	($23,373.93)
15	Emergency Communications	$513.01	$147,094.81	$147,607.82
20	Street (State Tax)	$469.57	$2,522,971.48	$2,523,441.05
25	Airport Maintenance	$983.97	$632,749.03	$633,733.00
45	Transportation	$774.78	$3,429,494.92	$3,430,269.70
50	Park Development	$703.20	$2,031,441.49	$2,032,144.69
58	Urban Renewal	$446.54	$173,578.51	$174,025.05
59	Urban Renewal Debt Service	$257.51	$599,662.93	$599,920.44
60	Debt Service	$773.22	$394,365.66	$395,138.88
70	Building	$976.65	$1,923,240.37	$1,924,217.02
75	Wastewater Services	$359.57	$2,818,969.95	$2,819,329.52
77	Wastewater Capital	$831.09	$39,973,103.65	$39,973,934.74
80	Information Systems & Services	$955.76	$219,742.38	$220,698.14
85	Insurance Reserve	$530.68	$395,290.54	$395,821.22
	CITY TOTALS	1,488,603.77	67,658,913.47	69,147,517.24

MATURITY DATE	INSTITUTION	TYPE OF INVESTMENT	INTEREST RATE	CASH VALUE
N/A	Key Bank of Oregon	Checking & Repurchase Sweep Account	0.20%	$ 1,488,603.77
N/A	Key Bank of Oregon	Money Market Savings Account	0.01%	$ 18,537,564.57
N/A	State of Oregon	Local Government Investment Pool (LGIP)	0.75%	$ 48,098,243.65
N/A	State of Oregon	Urban Renewal Loan Proceeds (LGIP)	0.75%	$ 187,806.39
N/A	MassMutual Financial Group	Group Annuity	3.00%	$ 835,298.86
				$ 69,147,517.24
				$ -

CITY OF McMINNVILLE
CITY COUNCIL SPECIAL CALLED MEETING
Held via Zoom Video Conference and at the Kent L. Taylor Civic Hall on Gormley Plaza
McMinnville, Oregon

Thursday, December 3, 2020 at 6:00 p.m.

Presiding: Scott Hill, Mayor

Recording Secretary: Claudia Cisneros

Councilors:	Present	Excused Absence
	Adam Garvin	
	Zack Geary	
	Kellie Menke, Council President	
	Remy Drabkin	
	Sal Peralta (arrived at 6:05 p.m.)	
	Wendy Stassens	

Also present were City Manager Jeff Towery, City Attorney Amanda Guile-Hinman, City Recorder Claudia Cisneros, Planning Director Heather Richards, Legal Counsel Spencer Parsons, Senior Planner Tom Schauer, Senior Planner Chuck Darnell, City Project Manager DJ Heffernan, Associate Planner Jamie Fleckenstein, Systems Analyst Megan Simmons, and members of the News Media –and Phil Guzzo, McMinnville Community Media and Dora Totoian, News Register

1. CALL TO ORDER: Mayor Hill called the meeting to order at 6:00 p.m.

2. PUBLIC HEARING:

   a. G 6-20/Ordinance **5098** – Urban Growth Boundary Amendment

Mayor Hill opened the public hearing and read the hearing statement. He asked if there was any objection to the jurisdiction of the Council to hear this matter. There was none.

Planning Director Richards presented the staff report. She explained what Ordinance 5098 would do, McMinnville Growth Management and Urbanization Plan (MGMUP) and appendices, Court of Appeals remand, remand data set, needed gross buildable acres, proposed UGB amendment, Court of Appeals roadmap for UGB analysis, identifying and evaluating the study areas, implementation methodology, Comprehensive Plan policy amendments, Zoning Ordinance amendments, Framework Plan and area planning, urban/rural impact, and written public testimony received.

Public Testimony:

Mark Davis, McMinnville resident, thought the process had not involved the public as much as it should have. The Planning Commission should have reviewed this. The greenway on Cozine Creek was not included in the 254 acres for parks. The 254 acre figure was supposed to be buildable land. He thought the 50 acres for parks should be removed from the 254 acres given they were doing the

same thing on the R-5 affordable housing land. He was concerned by limiting it to 36 acres, they would not meet the need for affordable housing.

Planning Director Richards said the Planning Commission had received presentations on the Urban Growth Boundary amendment effort a couple of times and had received the documents as they were prepared. There was a letter in the record from one of the Planning Commissioners as well.

Legal Counsel Parsons clarified this was a LCDC remand to the City Council. Because of the limited nature of the remand, the Council kept jurisdiction to process it.

Scott Trent, County resident, said his family owned property in the proposed Urban Growth Boundary expansion area. They were in support of the amendment as it was consistent with land use laws and regulations, it would address future needs, and services were already out this direction. They asked that the use of the land be flexible.

Alexis Biddle, representing 1,000 Friends of Oregon, was concerned about the ability of the City to provide affordable housing due to the reduction of the 72 acres for the R-5 zone to 36 acres based on multi-family development since 2003 in the existing UGB. They thought that this analysis should be done for all housing types. They were also concerned about the neighborhood activity center guidelines being in conflict with the policy of allowing higher density zoning in more dispersed areas. R-5 zoning would not be dispersed throughout the community and instead would be concentrated in very limited areas along Hill Road. They thought the City should strike the specific 1/8 and 1/4 quarter mile restriction for the location of medium and high density housing and the language be struck that stated "all R-5 lands would be located in Neighborhood Activity Centers."

Planning Director Richards said the original plan contemplated 36 acres of R-5 in the UGB expansion area. That had not changed with the proposal in front of them. The original proposal assumed that there would be apartments built in the existing City limits that would meet the need of the R-5 land. Because the R-5 zone did not move forward in the last 17 years, the land originally intended for that zone was developed in other ways. If they put 72 acres of R-5 in the UGB expansion area, that would be a change from the original proposal. Regarding the Neighborhood Activity Centers, they tried to retain as much of the original land as possible and provide text boxes that said what this 2020 remand did to change that. They thought the R-5 land would be distributed through the area planning process. One of the principles in the MGMUP was density and the activity centers that required R-5 was a way of regulating that density would occur in the area. It didn't mean the density could not occur in other places. Another principle in the MGMUP was smart growth which meant compact central nodes instead of long strip development of apartment complexes on a major arterial. This made the developments walkable and close to services and amenities.

Joe Rivera, McMinnville business and property owner, was concerned about the impact to quality of life due to traffic congestion and long waiting lines at restaurants. He did not think there had been enough public involvement and input. It should go to a vote of the people. He was also concerned about the population projections which he thought were too high and the economic development plan lacked strategies to help businesses, especially in these Covid times.

Legal Counsel Parsons explained the Charter had required annexations to go to voters, not amendments to the Urban Growth Boundary. In 2016, the state legislature took away the authority of local governments to refer annexations to the voters.

Barbara Boyer, representing the Yamhill Soil Conservation District, said they were not opposed to the amendment, but thought the City needed to be thoughtful about conservation.

Planning Director Richards said there was a Comprehensive Plan policy to do a Goal 5 and 7 analysis which would identify natural resources. Any heritage tree inventory or cultural resources would come in through that process.

Davis Wall, Newberg resident, asked if the amendment included non-point source issues and water pollution control.

City Project Manager Heffernan said the plan called for updating the City's Public Facility Plan which included the Sewer Master Plan and Transportation System Plan which dealt with stormwater runoff. The City was not subject to local permitting for stormwater discharge.

Ramsey McPhillips, McMinnville resident, said the southernmost tip of the UGB expansion proposal toed into his property, which he was in favor of. However, the rest of the farmland proposed to be included was not land that should be developed. He did not think the remand from eight years ago was still enforceable. He did not think the UGB expansion should be passed until they used the HB 2001 roadmap that specifically rezoned for in-fill densities. There should not be R-4 and R-5 zoning on ancestral agricultural lands before they rezoned the urban areas inside the UGB.

Legal Counsel Parsons said the City had confirmed with DLCD that they could move forward with this process and the work task and remand was still available to be taken up. In 2016 the legislature passed a law stating UGB amendment proceedings that had been initiated prior to 2016 would be subject to the rules that were in place as of the date of the initiation of those proceedings.

Patricia Trent, property owner, seconded her brother's statement on behalf of the two parcels of land on Old Sheridan Highway to be brought into the Urban Growth Boundary.

John Porter, representing the Masonic Lodge, said a cemetery that they owned and maintained was included in the UGB expansion. It did not make sense to include since it would never be developed. They would like it to be removed from the expansion.

Planning Director Richards said the property came into the City in 2003 as unbuildable land. They were changing the Comprehensive Plan designation of the property from residential to urban holding.

Steve Langer, McMinnville resident, spoke about the deterioration of agricultural land within Urban Growth Boundary expansion. He suggested pausing this action to consider the impact to those living adjacent to the expansion areas.

Suzanne Beukema, McMinnville resident, was concerned about citizen participation in this time of Covid. She questioned whether there would be enough jobs to justify all of the new housing. She also questioned the Neighborhood Activity Centers and spreading out the density through the

community. Growth would impact the environment and there should be a plan to preserve natural resources.

Debbie Robertson and Sarah Lynch, McMinnville residents, were concerned about growth and impacts to quality of life.

Councilor Stassens asked about the number of acres for the R-5 zoning. Legal Counsel Parsons said the underlying methodology for the number of housing units needed had remained the same. What had changed was some factual circumstances. The UGB expansion originally included the 36 acres and it was not being changed.

There was discussion regarding notification to all directly impacted property owners and newspapers.

Councilor Peralta responded to the comments about growth. They were required to do this by state law, the models that were used for the assumptions were based on the Portland State forecasting, and they were limited in the assumptions used in this process because it was a remand.

Planning Director Richards clarified this effort used the population forecast done through a local planning process and was challenged many times for several years. It was only recently that the state required the forecasting be done by Portland State. They had to plan for growth by state law and UGB expansions were intended to accommodate population growth at a higher rate than rural lands.

Councilor Menke moved to close the public hearing, but keep the record open for additional written testimony with a deadline of noon on December 4, 2020. The motion was seconded by Councilor Drabkin and passed unanimously.

Mayor Hill closed the public hearing.

Councilor Garvin asked if they had looked at all the possibilities for expansion so they did not put a burden on the southwest area. Planning Director Richards said how they looked at the land was prescribed by state law and the Court of Appeals decision. They were only able to look at land by soil classes and if they found it adequate to meet the need, they could not look elsewhere.

Councilor Garvin asked why the overlay zones were in the UGB amendment and not later in the process. Planning Director Richards said they planned to do the Transportation System Plan update before the area planning to determine the best location for the overlay zones. The Neighborhood Activity Center overlay was an enabling tool in the ordinance and it would not be attached to the property until it was annexed.

Councilor Garvin asked if annexation would be moved from the Council's purview to an administrative staff role. Planning Director Richards said the proposal was to move the annexation into only Council's purview including an annexation agreement with the property owner as to what they needed to do to annex into the City.

Councilor Geary asked about amended language that would need to be approved. Planning Director Richards said there were two recommendations for changing text in Comprehensive Plan policies 86 and 71.09.

Councilor Geary suggested adding Comprehensive Plan policy language to find ways to fund the updates to the City's master plans and TSP in the near term after the UGB passed.

Councilor Garvin asked about buffers between residential and farmland. Planning Director Richards said one of the Great Neighborhood Principles was urban/rural interface and when residential was built there was a buffer between the urban development and rural activity. What they had not done yet was to write code with clear and objective standards for what the buffering looked like.

Councilor Garvin asked why they were proposing three new neighborhood activity centers. Planning Director Richards said the downtown center was the largest and the highest density was supposed to occur there. The other two and a half centers were a means to bring services and amenities to people so they did not have to get in their cars to access them.

Councilor Stassens said one of the things to make these centers successful was the residential development needed to support the commercial uses. The way it was laid out here, they would mutually support each other.

Councilor Garvin questioned locating all of the centers on the southwest side of the City. Planning Director Richards said there had been discussions in creating the MGMUP about the separation of the centers. They were talking about serving a population of 1,500 households in the southwest area.

No Councilor present requested that the Ordinance be read in full.

City Attorney Guile-Hinman read by title only Ordinance No. 5098.

Councilor Stassens MOVED to pass Ordinance No. 5098 to a second reading with amended Comprehensive Plan policies 86 and 71.09; SECONDED by Council President Menke.

Motion PASSED 5-1 by the following vote:

Aye – Councilors Drabkin, Geary, Stassens, Menke, and Peralta
Nay – Councilor Garvin

The second reading of the ordinance would come back to Council on December 8, 2020.

3. ADJOURNMENT: Mayor Hill adjourned the meeting at 8:36 p.m.

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Claudia Cisneros, City Recorder

CITY OF McMINNVILLE
CITY COUNCIL WORK SESSION
Held via Zoom Video Conference and at the Kent L. Taylor Civic Hall on Gormley Plaza
McMinnville, Oregon

Tuesday, December 8, 2020 at 5:30 p.m.

Presiding: Scott Hill, Mayor

Recording Secretary: Claudia Cisneros

Councilors:	Present	Excused Absence
	Adam Garvin	
	Zack Geary	
	Kellie Menke, Council President	
	Remy Drabkin	
	Sal Peralta	
	Wendy Stassens (arrived at 6:01 p.m.)	

Also present were City Manager Jeff Towery, City Attorney Amanda Guile-Hinman, Police Chief Matt Scales, City Recorder Claudia Cisneros, Parks and Recreation Director Susan Muir, Finance Director Jennifer Cuellar, Human Resources Manager Kylie Bayer, Planning Director Heather Richards, Information System Director Scott Burke, Library Director Jenny Berg, Operations Chief Amy Hanifan, Fire Chief Rich Leipfert, Fire Marshal Debbie McDermott, City Prosecutor Shannon Erskine, and member of the News Media –and Jerry Eichten, McMinnville Community Media, and Dora Totoian, News Register.

1. CALL TO ORDER: Mayor Hill called the meeting to order at 5:31 p.m.

2. FEASIBILITY STUDY UPDATE

Fire Chief Leipfert introduced the Fire District and Departments Consolidation Feasibility Study.

Sheldon Gilbert, ESCI Chief Executive Officer, described the process and purpose of the study, why they should consider cooperative services, report sections, evaluation of current conditions, opportunities for cooperative efforts, general partnering strategies, analysis of shared service options, summary of findings, recommendations, and implementation process.

There was discussion regarding staffing, how standardization would benefit the business community, funding increase for additional staffing, staffing levels and response times, age of McMinnville's fire station, number of incidents they could respond to at a given time, increased call volume, response times, revenue options, number of jurisdictions that needed to join to be beneficial, which jurisdiction were interested, and next steps.

There was consensus for staff to move forward with the process.

3. ADJOURNMENT: Mayor Hill adjourned the Work Session at 7:00 p.m.

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Claudia Cisneros, City Recorder

CITY OF McMINNVILLE
MINUTES OF CITY COUNCIL MEETING
Held via Zoom Video Conference and at the Kent L. Taylor Civic Hall on Gormley Plaza
McMinnville, Oregon

Tuesday, December 8, 2020 at 7:00 p.m.

Presiding: Scott Hill, Mayor

Recording Secretary: Claudia Cisneros

Councilors:

Present	Absent
Remy Drabkin	
Adam Garvin	
Kellie Menke, Council President	
Zack Geary	
Wendy Stassens	
Sal Peralta	

Also present were City Manager Jeff Towery, City Attorney Amanda Guile-Hinman, City Recorder Claudia Cisneros, Planning Director Heather Richards, Senior Planner Chuck Darnell, Project Manager DJ Heffernan, Associate Planner Jamie Fleckenstein, Police Chief Matt Scales, Fire Chief Rich Leipfert, Finance Director Jennifer Cuellar, Parks and Recreation Director Susan Muir, Information Technology Director Scott Burke, Library Director Jenny Berg, Human Resources Manager Kylie Bayer, Community Development Director Mike Bisset, Legal Counsel Spencer Parsons, and Jerry Eichten, McMinnville Community Media and Dora Totoian, News Register.

1. CALL TO ORDER: Mayor Hill called the meeting to order at 7:03 p.m. and welcomed all in attendance.

2. INVITATION TO CITIZENS FOR PUBLIC COMMENT: Mayor Hill invited the public to comment.

There was no public comment.

3. ADVICE/ INFORMATION ITEMS

3.a. Reports from Councilors on Committee & Board Assignments

Councilor Geary said he interviewed candidates for the Landscape Review Committee and announced several upcoming meetings he planned to attend.

Council President Menke reported on YCAP positions, services, and grants/donations.

Councilor Drabkin said she had interviewed candidates for the Affordable Housing Task Force. There were still openings on the Task Force as well as the new DEI committee. The Task Force was working on SROs and heard about changes to Champion Team.

Councilor Peralta said the Council of Governments interviewed candidates for the new Executive Director.

Councilor Garvin said YCOM would meet Thursday and the Airport Commission would forward a recommendation for new Commissioners in January.

Mayor Hill reported on MURAC where the Third Street Streetscape Improvement Project and Covid recovery grants were discussed. Dave Rucklos had become an ex officio member representing MDA. He gave an update on the weekly Yamhill County Leadership call where Measure 10 was discussed. He had interviewed candidates for the Planning Commission. He recommended the reappointment of Ed Gormley to the McMinnville Water & Light Commission.

Councilor Drabkin MOVED to approve the appointment of Ed Gormely to the McMinnville Water & Light Commission; SECONDED by Councilor Stassens. Motion PASSED unanimously.

3.b. Department Head Reports

Human Resources Manager Bayer said applications for the DEI Committee had been extended through January 3. There were new OSHA compliance rules related to Covid.

City Manager Towery said there would be a report to the Council on the recent apartment fire. He announced the virtual town and gown event and Aviation Museum listening sessions.

4. CONSENT AGENDA

a. Consider request from Evensong Winery located at 2803 NE Orchard Ave for an OLCC Winery 1st Location Liquor License.

b. Consider request from Chipotle Mexican Grill, Inc. located at 2696 N Hwy 99W for an OLCC Limited On-Premises Liquor License.

c. Consider Resolution No. **2020-68**: A Resolution approving the issuance of the certificate for the canvass of the returns of the votes cast at the General Election conducted on November 3, 2020, electing of three City Councilors and Mayor.

d. Consider Resolution No. **2020-69**: A Resolution of the City of McMinnville Approving a Personal Services Contract with Erskine Law Practice, LLC to Provide City Prosecutorial Services

Councilor Peralta MOVED to adopt the consent agenda as presented; SECONDED by Councilor Drabkin. Motion PASSED unanimously.

5. RESOLUTIONS

5.a. Consider Resolution No. **2020-66**: A Resolution initiating the proceedings and setting a date and time for a public hearing to vacate SE Chandler Avenue east of SE Davis Street (RV 1-20).

Community Development Director Bisset said they had received a vacation petition from a citizen on SE Chandler. If approved, the hearing would be held on January 12, 2021.

Councilor Drabkin MOVED to approve Resolution No. 2020-66, initiating the proceedings and setting a date and time for a public hearing to vacate SE Chandler Avenue east of SE Davis Street (RV 1-20); SECONDED by Councilor Stassens. Motion PASSED 6-0 by the following vote:

Aye – Councilors Drabkin, Geary, Garvin, Stassens, Peralta, and Menke

5.b. Consider Resolution No. **2020-67**: A Resolution Adopting the City of McMinnville Representation in the Updates to the Yamhill County Multi-Jurisdictional Natural Hazards Mitigation Plan.

Community Development Director Bisset said the City had joined Yamhill County's effort to update their mitigation plan and to add a McMinnville addendum to that plan. This would give the City an opportunity for potential grant funding related to hazard mitigation.

Councilor Geary MOVED to approve Resolution No. 2020-67, adopting the City of McMinnville representation in the updates to the Yamhill County multi-jurisdictional Natural Hazards Mitigation Plan; SECONDED by Councilor Peralta. Motion PASSED 6-0 by the following vote:

Aye – Councilors Drabkin, Geary, Garvin, Stassens, Peralta and Menke

5.c. Consider Resolution No. **2020-70**: A Resolution appointing and re-appointing members to the various Boards, Committees, and Commissions.

Planning Director Richards said this was an annual resolution to appoint members to various City committees. She explained the solicitation and interview process. She then listed the suggested appointments.

Council President Menke MOVED to approve Resolution No. 2020-70, appointing and re-appointing members to the various boards, committees, and commissions; SECONDED by Councilor Drabkin. Motion PASSED 6-0 by the following vote:

Aye – Councilors Drabkin, Geary, Garvin, Stassens, Peralta and Menke

6. ORDINANCE

6.a. Second reading of Ordinance No. **5098**: An Ordinance Adopting Certain Amendments to the McMinnville Comprehensive Plan Map, Comprehensive Plan and McMinnville Municipal Code (Chapter 17), Approving the McMinnville Growth Management and Urbanization Plan and Its Appendices, And Adding Land Supply to McMinnville's Urban Growth Boundary.

Mayor Hill asked if the Council needed to disclose any ex parte contacts.

Mayor Hill said he had received an email from a citizen today regarding density issues. He did not read it in detail. It was sent after the 12:00 p.m. December 4 deadline and was not entered into the record.

Councilor Peralta also received an email after the deadline, but did not read it once he realized what the contents were.

Councilor Garvin said a reporter from the *News Register* reached out to him, but he did not talk to them.

Planning Director Richards reviewed what the ordinance would do, written testimony received by the December 4 deadline, drafted findings, and proposed amendments based on the public testimony. The amendments included a rewrite of new Comprehensive Plan Policy #86, amending the existing Comprehensive Plan Policy #71.09, amending page 54 of the MGMUP, and adding Technical Memorandum #17B.

No Councilor present requested that the Ordinance be read in full.

City Attorney Guile-Hinman read by title only Ordinance No. 5098.

Councilor Stassens MOVED to approve the second reading of Ordinance No. 5098, adopting certain amendments to the McMinnville Comprehensive Plan Map, Comprehensive Plan and McMinnville Municipal Code (Chapter 17), approving the McMinnville Growth Management and Urbanization Plan and its appendices, and adding land supply to McMinnville's Urban Growth Boundary including the recommended amendments provided in the December 8, 2020 staff report and the findings as distributed today; SECONDED by Councilor Peralta. Motion PASSED 4-2 by the following vote:

Aye – Councilors Drabkin, Stassens, Peralta, and Menke
Nay – Councilors Garvin and Geary

7. ADJOURNMENT: Mayor Hill adjourned the meeting at 7:52 p.m.

_____
Claudia Cisneros, City Recorder

CITY OF McMINNVILLE
MINUTES OF CITY COUNCIL WORK SESSION
Held via Zoom Video Conference and at the Kent L. Taylor Civic Hall on Gormley Plaza
McMinnville, Oregon

Wednesday, December 16, 2020 at 6:00 p.m.

Presiding: Scott Hill, Mayor

Recording Secretary: Claudia Cisneros

Councilors:	Present	Absent
	Remy Drabkin	Zack Geary
	Adam Garvin (joined at 6:04 p.m.)	
	Sal Peralta	
	Wendy Stassens	
	Kellie Menke, Council President	

Budget Committee: Alison Seiler
Debbie Harmon-Ferry
Meredith Maxfield

Also present were City Manager Jeff Towery, City Attorney Amanda Guile-Hinman, City Recorder Claudia Cisneros, Finance Director Jennifer Cuellar, Human Resources Manager Kylie Bayer, Senior Accountant Ronda Gretzon, Engineering Services Manager Larry Sherwood, Community Development Director Mike Bisset, Fire Chief Rich Leipfert, and members of the News Media – Jerry Eichten, McMinnville Community Media, and Dora Totoian, *News Register*.

1. CALL TO ORDER: Mayor Hill called the meeting to order at 6:01 p.m. and welcomed all in attendance.

2. PRESENTATION/DISCUSSION: Fiscal Year 2021 Mid-Year Budget Review

Former City Manager Kent Taylor spoke about the difficulties of 2020 and the City's response. He expressed gratitude to the Council and staff for all that they had done.

City Manager Towery introduced the agenda item.

Finance Director Cuellar gave a presentation on the mid-year budget review. The General Fund's net variance for FY21 re-projection was less than 1%. She discussed General Fund revenues and expenditures, mid-year review themes, Street Fund, Transient Lodging Tax Fund, Coronavirus

relief fund and other federal awards, staff's proposal for the near term budget approach, and FY22 budget approach.

There was discussion regarding McMinnville Water & Light's in lieu of payment to the City, homeless housing support, RV towing costs, outcomes of the moteling project, gathering data and building in City support for YCAP for the moteling program, impact of Measure 110, funds for Visit McMinnville, Cares Act funds, and error in the Airport Fund regarding aviation fuel.

There was support for funding homeless housing and getting more information about towing costs and options.

3. ADJOURNMENT: Mayor Hill adjourned the Work Session at 7:19 p.m.

_____

Claudia Cisneros, City Recorder

City of McMinnville
POLICE

City Recorder Use

Final Action:
Approved ☐ Disapproved ☐

Liquor License Recommendation

BUSINESS NAME / INDIVIDUAL: Audiovine Wine Consulting, LLC dba: Approachment Wines
BUSINESS LOCATION ADDRESS: 1400 NE Alpha Drive
LIQUOR LICENSE TYPE: Primary winery location

Is the business at this location currently licensed by OLCC

Yes	No
☑	☐

If yes, what is the name of the existing business:

Hours of operation: 8 am to 5 pm Sunday - Saturday
Entertainment: N/A
Hours of Music: N/A
Seating Count: N/A

EXEMPTIONS:
(list any exemptions)

Tritech Records Management System Check: Yes ☑ No ☐

Criminal Records Check: Yes ☑ No ☐

Recommended Action: Approve ☑ Disapprove ☐

Chief of Police / Designee

City Manager / Designee

LIQUOR LICENSE APPLICATION

Check the appropriate license request option:

☑ New Outlet | ☐ Change of Ownership | ☐ Greater Privilege | ☐ Lesser Privilege

Select the license type you are applying for.

More information about all license types is available online.

Full On-Premises

- ☐Commercial
- ☐Caterer
- ☐Public Passenger Carrier
- ☐Other Public Location
- ☐For Profit Private Club
- ☐Nonprofit Private Club

Winery

- ☑Primary location
- Additional locations: ☐2nd ☐3rd ☐4th ☐5th

Brewery

- ☐Primary location
- Additional locations: ☐2nd ☐3rd

Brewery-Public House

- ☐Primary location
- Additional locations: ☐2nd ☐3rd

Grower Sales Privilege

- ☐Primary location
- Additional locations: ☐2nd ☐3rd

Distillery

- ☐ Primary location

Additional tasting locations: ☐2nd ☐3rd ☐4th ☐5th ☐6th

☐ **Limited On-Premises**

☐ **Off Premises**

☐ **Warehouse**

☐ **Wholesale Malt Beverage and Wine**

INTERNAL USE ONLY

Application received:

8/29/2022

Minimum documents acquired:

LOCAL GOVERNING BODY USE ONLY

City/County name:

Date application received:

Optional: Date Stamp

☐ Recommend this license be granted

☐ Recommend this license be denied

_____ _____

Printed Name **Date**

Return this form to:

Investigator name: TIFFANY MEYER

Email: tiffany.meyer@oregon.gov

City of McMinnville
Public Works Department
3500 NE Clearwater Drive
McMinnville, OR 97128
(503) 434-7313
www.mcminnvilleoregon.gov

STAFF REPORT

DATE: **September 13, 2022**
TO: **Jeff Towery, City Manager**
FROM: **Leland Koester, Wastewater Services Manager**
SUBJECT: **Public Works Water Reclamation Facility and Conveyance System Master Plan Update**

Report in Brief:

This action is the consideration of a resolution to award a Professional Services Contract to Jacobs (formerly CH2MHill) for the Public Works Water Reclamation Facility and Conveyance System Master Plan Update, Project 2022-5.

Background:

In March of 2022, the City advertised a formal request for proposals for a consultant to perform a master plan update for the city's Water Reclamation Facility and Conveyance Systems to plan for the next 20 years of operational needs. This work would cover the following items:

- Collection system flow monitoring
- Collection system model update and calibration
- Collection system capacity analysis
- WRF hydraulic model update to address any changes from the collection system
- Update existing treatment plant evaluations
- Analysis the possible addition of BIOCHAR as a treatment process

Several different vendors participated in the pre-bid meeting for this project, but the City only received one response to the RFP and that was from Jacobs Engineering Group. The proposal was considered responsive and meet the requirements of the RFP.

The estimate for this scope of work is $ 1,397,193.

Attachments:

1. Resolution 2022-58
2. PSA Consultant WRF_Conveyance Master Plan Project
    a. Exhibit A Scope of work
    b. Exhibit B Fee Summary
3. Jacobs Proposal

Fiscal Impact:

Funds for this project are included in the FY22/23 thru 24/25 Wastewater Capital Fund (77).

Recommendation:

Staff recommends that the City Council adopt the attached resolution approving a Professional Services Contract with Jacobs for the Public Works Water Reclamation Facility (WRF) and Conveyance System Master Plan Update, Project 2022-5.

RESOLUTION NO. 2022 - 58

A Resolution approving the award of a Professional Services Contract to Jacobs Engineering Group Inc. for the Public Works Water Reclamation Facility (WRF) and Conveyance System Master Plan Update, Project 2022-5.

RECITALS:

Whereas, On April 7, 2022, one proposal was received for the Public Works Water Reclamation Facility and Conveyance System Master Plan Update, Project 2022-5; and

Whereas, Jacobs Engineering Group Inc. met all the RFP requirements and had the only responsive proposal; and

Whereas, The City has negotiated the type of services, work scope, project team, sub-consultants, fee, and schedule with Jacobs; and

Whereas, The estimate for this scope of work is $ 1,397,193; and

Whereas, Project funding is included in the adopted FY 23 thru FY 25 Wastewater Capital Fund (77) budget for the WRF and Conveyance master plan update.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF MCMINNVILLE, OREGON, as follows:

1. That entry into a Professional Services Contract with Jacobs for the Public Works Water Reclamation Facility (WRF) and Conveyance System Master Plan Update, in the amount of $ 1,397,193 (**Exhibit 1**) is hereby approved.
2. The City Manager is hereby authorized and directed to execute the contract with Jacobs.
3. That this resolution shall take effect immediately upon passage and shall continue in full force and effect until revoked or replaced.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 13th day of September 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 13th day of September 2022.

_____
MAYOR

Approved as to form: Attest:

_____ _____
City Attorney City Recorder

EXHIBITS:

1. Professional Services Agreement with Jacobs Engineering Group INC.

CITY OF McMINNVILLE
PROFESSIONAL SERVICES AGREEMENT

This Professional Services Agreement ("Agreement") for the Water Reclamation Facility (WRF) and Conveyance System Master Plan Update ("Project") is made and entered into on this 13 day of September 2022 ("Effective Date") by and between the **City of McMinnville**, a municipal corporation of the State of Oregon (hereinafter referred to as the "City"), and Jacobs Engineering Group INC., a Delaware corporation (hereinafter referred to as "Consultant").

RECITALS

WHEREAS, the City requires services which Consultant is capable of providing, under terms and conditions hereinafter described; and

WHEREAS, Consultant represents that Consultant is qualified to perform the services described herein on the basis of specialized experience and technical expertise; and

WHEREAS, Consultant is prepared to provide such services as the City does hereinafter require.

NOW, THEREFORE, in consideration of these mutual promises and the terms and conditions set forth herein, the parties agree as follows:

AGREEMENT

Section 1. Scope of Work

Consultant shall diligently perform the professional services according to the requirements and deliverable dates identified in the Scope of Work for the Project, attached hereto as **Exhibit A** and incorporated by reference herein (the "Services").

Section 2. Term

The term of this Agreement shall be from the Effective Date until all Services required to be performed hereunder are completed and accepted, or no later than June 30, 2025, whichever occurs first, unless earlier terminated in accordance herewith or an extension of time is agreed to, in writing, by the City.

Section 3. Consultant's Services

3.1. All written documents, drawings, and plans submitted by Consultant in conjunction with the Services shall bear the signature, stamp, or initials of Consultant's authorized Project Manager. Any documents submitted by Consultant that do not bear the signature, stamp, or initials of Consultant's authorized Project Manager, will not be relied upon by the City. Interpretation of plans and answers to questions regarding the Services or Scope of Work given by Consultant's

verbally or in writing. If requested by the City to be in writing, Consultant's Project Manager will provide such written documentation.

3.2. Consultant will not be deemed to be in default by reason of delays in performance due to circumstances beyond Consultant's reasonable control, including but not limited to strikes, lockouts, severe acts of nature, or other unavoidable delays or acts of third parties not under Consultant's direction and control ("Force Majeure"). In the case of the happening of any Force Majeure event, the time for completion of the Services will be extended accordingly and proportionately by the City, in writing. Lack of labor, supplies, materials, or the cost of any of the foregoing shall not be deemed a Force Majeure event.

3.3. The existence of this Agreement between the City and Consultant shall not be construed as the City's promise or assurance that Consultant will be retained for future services beyond the Scope of Work described herein.

3.4. Consultant shall maintain the confidentiality of any confidential information that is exempt from disclosure under state or federal law to which Consultant may have access by reason of this Agreement. Consultant warrants that Consultant's employees assigned to the Services provided in this Agreement shall be clearly instructed to maintain this confidentiality. All agreements with respect to confidentiality shall survive the termination or expiration of this Agreement.

Section 4. Compensation

4.1. Except as otherwise set forth in this **Section 4**, the City agrees to pay Consultant on a time and materials basis, guaranteed not to exceed ONE MILLION THREE HUNDRED NINETY-SEVEN THOUSAND ONE HUNDRED NINETY-THREE DOLLARS ($1,397,193), ("Compensation Amount") as set forth in **Exhibit B**. Any compensation in excess of the Compensation Amount will require an express written Addendum to be executed between the City and Consultant.

4.2. During the course of Consultant's performance, if the City, through its Project Manager, specifically requests Consultant to provide additional services that are beyond the Scope of Work described on **Exhibit A**, a written Addendum to this Agreement must be executed in compliance with the provisions of **Section 17**.

4.3. Except for amounts withheld by the City pursuant to this Agreement, Consultant will be paid for Services for which an itemized invoice is received by the City within thirty (30) days of receipt, unless the City disputes such invoice. In that instance, the undisputed portion of the invoice will be paid by the City within the above timeframe. The City will set forth its reasons for the disputed claim amount and make good faith efforts to resolve the invoice dispute with Consultant as promptly as is reasonably possible.

4.4. The City will be responsible for the direct payment of required fees payable to governmental agencies, including but not limited to plan checking, land use, zoning, permitting, and all other similar fees resulting from this Project, that are not specifically covered by **Exhibit A**.

4.5. Consultant's Compensation Amount and Rate Schedule are all inclusive and include, but are not limited to, all work-related costs, expenses, salaries or wages, plus fringe benefits and contributions, including payroll taxes, workers compensation insurance, liability insurance, profit, pension benefits and similar contributions and benefits, technology and/or software charges, licensing, trademark, and/or copyright costs, office expenses, travel expenses, mileage, and all other indirect and overhead charges.

Section 5. City's Rights and Responsibilities

5.1. The City will designate a Project Manager to facilitate day-to-day communication between Consultant and the City, including timely receipt and processing of invoices, requests for information, and general coordination of City staff to support the Project.

Section 6. City's Project Manager

The City's Project Manager is "Leland Koester ". The City shall give Consultant prompt written notice of any re-designation of its Project Manager.

Section 7. Consultant's Project Manager

Consultant's Project Manager is "Joshua Koch ". In the event that Consultant's designated Project Manager is changed, Consultant shall give the City prompt written notification of such re-designation. Recognizing the need for consistency and knowledge in the administration of the Project, Consultant's Project Manager will not be changed without the written consent of the City, which consent shall not be unreasonably withheld. In the event the City receives any communication from Consultant that is not from Consultant's designated Project Manager, the City may request verification by Consultant's Project Manager, which verification must be promptly furnished.

Section 8. Project Information

Except for confidential information designated by the City as information not to be shared, Consultant agrees to share Project information with, and to fully cooperate with, those corporations, firms, contractors, public utilities, governmental entities, and persons involved in or associated with the Project. No information, news, or press releases related to the Project, whether made to representatives of newspapers, magazines, or television and radio stations, shall be made without the written authorization of the City's Project Manager.

Section 9. Duty to Inform

If at any time during the performance of this Agreement or any future phase of this Agreement for which Consultant has been retained, Consultant becomes aware of actual or potential problems, faults, or defects in the Project or Scope of Work, or any portion thereof; or of any nonconformance with federal, state, or local laws, rules, or regulations; or if Consultant has any objection to any

decision or order made by the City with respect to such laws, rules, or regulations, Consultant shall give prompt written notice thereof to the City's Project Manager. Any delay or failure on the part of the City to provide a written response to Consultant shall neither constitute agreement with nor acquiescence to Consultant's statement or claim, nor constitute a waiver of any of the City's rights.

Section 10. Subcontractors and Assignments

10.1. Consultant shall not assign any of Consultant's rights acquired hereunder without obtaining prior written approval from the City, which approval may be granted or denied in the City's sole discretion. Some Services may be performed by persons other than Consultant, provided Consultant advises the City of the names of such subcontractors and the work which they intend to perform, and the City specifically agrees in writing to such subcontracting. Consultant acknowledges such work will be provided to the City pursuant to a subcontract(s) between Consultant and subcontractor(s) and no privity of contract exists between the City and the subcontractor(s). Unless otherwise specifically provided by this Agreement, the City incurs no liability to third persons for payment of any compensation provided herein to Consultant. Any attempted assignment of this Agreement without the written consent of the City shall be void. Except as otherwise specifically agreed, all costs for work performed by others on behalf of Consultant shall not be subject to additional reimbursement by the City.

10.2. The City shall have the right to enter into other agreements for the Project, to be coordinated with this Agreement. Consultant shall cooperate with the City and other firms, engineers or subcontractors on the Project so that all portions of the Project may be completed in the least possible time and within normal working hours. Consultant shall furnish other engineers, subcontractors and affected public utilities, whose designs are fitted into Consultant's design, detail drawings giving full information so that conflicts can be avoided.

10.3. Consultant shall include this Agreement by reference in any subcontract and require subcontractors to perform in strict compliance with this Agreement.

Section 11. Consultant Is Independent Contractor

11.1. Consultant is an independent contractor for all purposes and shall be entitled to no compensation other than the Compensation Amount provided for under **Section 4** of this Agreement. Consultant will be solely responsible for determining the manner and means of accomplishing the end result of Consultant's Services. The City does not have the right to control or interfere with the manner or method of accomplishing said Services. The City, however, will have the right to specify and control the results of Consultant's Services so such Services meet the requirements of the Project.

11.2. Consultant may request that some consulting services be performed on the Project by persons or firms other than Consultant, through a subcontract with Consultant. Consultant acknowledges that if such services are provided to the City pursuant to a subcontract(s) between Consultant and those who provide such services, Consultant may not utilize any subcontractor(s), or in any way assign its responsibility under this Agreement, without first obtaining the express written consent of the City, which consent may be given or denied in the City's sole discretion. In

all cases, processing and payment of billings from subcontractors is solely the responsibility of Consultant.

11.3. Consultant shall be responsible for, and defend, indemnify, and hold the City harmless against, any liability, cost, or damage arising out of Consultant's use of such subcontractor(s) and subcontractor's negligent acts, errors, or omissions. Unless otherwise agreed to, in writing, by the City, Consultant shall require that all of Consultant's subcontractors also comply with, and be subject to, the provisions of this **Section 11** and meet the same insurance requirements of Consultant under this Agreement.

Section 12. Consultant Responsibilities

12.1. Consultant must make prompt payment for any claims for labor, materials, or services furnished to Consultant by any person in connection with this Agreement as such claims become due. Consultant shall not permit any liens or claims to be filed or prosecuted against the City on account of any labor or material furnished to or on behalf of Consultant. If Consultant fails, neglects, or refuses to make prompt payment of any such claim, the City may, but shall not be obligated to, pay such claim to the person furnishing the labor, materials, or services and offset the amount of the payment against funds due or to become due to Consultant under this Agreement. The City may also recover any such amounts directly from Consultant.

12.2. Consultant must comply with all applicable Oregon and federal wage and hour laws, including BOLI wage requirements, if applicable. Consultant shall make all required workers compensation and medical care payments on time. Consultant shall be fully responsible for payment of all employee withholdings required by law, including but not limited to taxes, including payroll, income, Social Security (FICA), and Medicaid. Consultant shall also be fully responsible for payment of salaries, benefits, taxes, Industrial Accident Fund contributions, and all other charges on account of any employees. Consultant shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167. All costs incident to the hiring of assistants or employees shall be Consultant's responsibility. Consultant shall defend, indemnify, and hold the City harmless from claims for payment of all such expenses.

12.3. No person shall be discriminated against by Consultant or any subcontractor in the performance of this Agreement on the basis of sex, gender, race, color, creed, religion, marital status, age, disability, sexual orientation, gender identity, or national origin. Any violation of this provision shall be grounds for cancellation, termination, or suspension of the Agreement, in whole or in part, by the City. References to "subcontractor" mean a subcontractor at any tier.

Section 13. Indemnity

13.1. Indemnification. Consultant acknowledges responsibility for liability arising out of the performance of this Agreement, and shall defend, indemnify, and hold the City harmless from any and all liability, settlements, loss, costs, and expenses in connection with any action, suit, or claim to the extent caused by Consultant's negligent acts, omissions, error, or willful or reckless misconduct pursuant to this Agreement. The review, approval, or acceptance by the City, its Project Manager, or any City employee of documents or other work performed, prepared, or submitted by

Consultant shall not be considered a negligent act, error, omission, or willful misconduct on the part of the City, and none of the foregoing shall relieve Consultant of its responsibility to perform in full conformity with the City's requirements, as set forth in this Agreement, and to indemnify the City as provided above and to reimburse the City for any and all costs and damages suffered by the City as a result of Consultant's negligent performance of this Agreement, negligent failure of performance hereunder, violation of state or federal laws, or failure to adhere to the standards of performance and care described in **Subsection 13.2**. Consultant shall defend the City (using legal counsel reasonably acceptable to the City) against any claim that alleges negligent acts, omissions, errors, or willful or reckless misconduct by Consultant. As used herein, the term "Consultant" applies to Consultant and its own agents, employees, and suppliers, and to all of Consultant's subcontractors, including their agents, employees, and suppliers.

13.2. Standard of Care. In the performance of the Services, Consultant agrees to use the degree of skill and diligence normally employed by professional engineers or consultants performing the same or similar services at the time said services are performed. Consultant will re-perform any Services not meeting this standard without additional compensation. Consultant's re-performance of any Services, even if done at the City's request, shall not be considered as a limitation or waiver by the City of any other remedies or claims it may have arising out of Consultant's failure to perform in accordance with the applicable standard of care of this Agreement and within the prescribed timeframe.

Section 14. Insurance

14.1. Insurance Requirements. Consultant shall maintain insurance coverage acceptable to the City in full force and effect throughout the term of this Agreement. Such insurance shall cover all risks arising directly or indirectly out of Consultant's activities or work hereunder. Any and all agents, contractors, or subcontractors with which Consultant contracts to work on the Services must have insurance that conforms to the insurance requirements in this Agreement. Additionally, if a subcontractor is an engineer, architect, or other professional, Consultant must require the subcontractor to carry Professional Errors and Omissions insurance and must provide to the City proof of such coverage. The amount of insurance carried is in no way a limitation on Consultant's liability hereunder. The policy or policies maintained by Consultant shall provide at least the following minimum limits and coverages at all times during performance under this Agreement:

14.1.1. Commercial General Liability Insurance. Consultant and all subcontractors shall obtain, at each of their own expense, and keep in effect during the term of this Agreement, comprehensive Commercial General Liability Insurance covering Bodily Injury and Property Damage, written on an "occurrence" form policy. This coverage shall include broad form Contractual Liability insurance for the indemnities provided under this Agreement and shall be for the following minimum insurance coverage amounts: The coverage shall be in the amount of **$2,000,000** for each occurrence and **$3,000,000** general aggregate and shall include Products-Completed Operations Aggregate in the minimum amount of **$2,000,000** per occurrence, Fire Damage (any one fire) in the minimum amount of **$50,000**, and Medical Expense (any one person) in the minimum amount of **$10,000**. All

of the foregoing coverages must be carried and maintained at all times during this Agreement.

14.1.2. Professional Errors and Omissions Coverage. Consultant agrees to carry Professional Errors and Omissions Liability insurance on a policy form appropriate to the professionals providing the Services hereunder with a limit of no less than **$2,000,000** per claim. Consultant shall maintain this insurance for damages alleged to be as a result of errors, omissions, or negligent acts of Consultant. Such policy shall have a retroactive date effective before the commencement of any work by Consultant on the Services covered by this Agreement, and coverage will remain in force for a period of at least three (3) years after termination of this Agreement.

14.1.3. Business Automobile Liability Insurance. If Consultant or any subcontractors will be using a motor vehicle in the performance of the Services herein, Consultant shall provide the City a certificate indicating that Consultant and its subcontractors have business automobile liability coverage for all owned, hired, and non-owned vehicles. The Combined Single Limit per occurrence shall not be less than **$2,000,000**.

14.1.4. Workers Compensation Insurance. Consultant, its subcontractors, and all employers providing work, labor, or materials under this Agreement that are subject employers under the Oregon Workers Compensation Law shall comply with ORS 656.017, which requires them to provide workers compensation coverage that satisfies Oregon law for all their subject workers under ORS 656.126. Out-of-state employers must provide Oregon workers compensation coverage for their workers who work at a single location within Oregon for more than thirty (30) days in a calendar year. Consultants who perform work without the assistance or labor of any employee need not obtain such coverage. This shall include Employer's Liability Insurance with coverage limits of not less than **$500,000** each accident.

14.1.5. Insurance Carrier Rating. Coverages provided by Consultant and its subcontractors must be underwritten by an insurance company deemed acceptable by the City, with an AM Best Rating of A or better. The City reserves the right to reject all or any insurance carrier(s) with a financial rating that is unacceptable to the City.

14.1.6. Additional Insured and Termination Endorsements. The City will be named as an additional insured with respect to Consultant's liabilities hereunder in insurance coverages. Additional Insured coverage under Consultant's Commercial General Liability, Automobile Liability, and Excess Liability Policies, as applicable, will be provided by endorsement. Additional insured coverage shall be for both ongoing operations via ISO Form CG 2010 or its equivalent, and products and completed operations via ISO Form CG 2037 or its equivalent. Coverage shall be Primary and Non-Contributory. Waiver of Subrogation endorsement via ISO Form CG 2404 or its equivalent shall be provided. The following is included as additional insured: "The City of McMinnville, its elected and appointed officials, officers, agents, employees, and volunteers." An endorsement shall also be provided requiring the insurance carrier to give the City at least

thirty (30) days' written notification of any termination or major modification of the insurance policies required hereunder. Consultant must be an additional insured on the insurance policies obtained by its subcontractors performing work on the Services contemplated under this Agreement.

14.1.7. Certificates of Insurance. As evidence of the insurance coverage required by this Agreement, Consultant shall furnish a Certificate of Insurance to the City. This Agreement shall not be effective until the required certificates and the Additional Insured Endorsements have been received and approved by the City. Consultant agrees that it will not terminate or change its coverage during the term of this Agreement without giving the City at least thirty (30) days' prior advance notice and Consultant will obtain an endorsement from its insurance carrier, in favor of the City, requiring the carrier to notify the City of any termination or change in insurance coverage, as provided above.

14.2. Primary Coverage. The coverage provided by these policies shall be primary, with the exception of Workers Compensation and Professional Liability, and any other insurance carried by the City is excess. Consultant shall be responsible for any deductible amounts payable under all policies of insurance. If insurance policies are "Claims Made" policies, Consultant will be required to maintain such policies in full force and effect throughout any warranty period.

Section 15. Early Termination; Default

15.1. This Agreement may be terminated prior to the expiration of the agreed upon terms:

15.1.1. By mutual written consent of the parties;

15.1.2. By the City, for any reason, and within its sole discretion, effective upon delivery of written notice to Consultant by mail or in person; or

15.1.3. By Consultant, effective upon seven (7) days' prior written notice in the event of substantial failure by the City to perform in accordance with the terms through no fault of Consultant, where such default is not cured within the seven (7) day period by the City. Withholding of disputed payment is not a default by the City.

15.2. If the City terminates this Agreement, in whole or in part, due to default or failure of Consultant to perform Services in accordance with the Agreement, the City may procure, upon reasonable terms and in a reasonable manner, services similar to those so terminated. In addition to any other remedies the City may have, both at law and in equity, for breach of contract, Consultant shall be liable for all costs and damages incurred by the City as a result of the default by Consultant, including, but not limited to all costs incurred by the City in procuring services from others as needed to complete this Agreement. This Agreement shall be in full force to the extent not terminated by written notice from the City to Consultant. In the event of a default, the City will provide Consultant with written notice of the default and a period of ten (10) days to cure the default. If Consultant notifies the City that it wishes to cure the default but cannot, in good faith, do so within the ten (10) day cure period provided, then the City may elect, in its sole discretion, to extend the cure period to

an agreed upon time period, or the City may elect to terminate this Agreement and seek remedies for the default, as provided above.

15.3. If the City terminates this Agreement for its own convenience not due to any default by Consultant, payment of Consultant shall be prorated to, and include the day of, termination and shall be in full satisfaction of all claims by Consultant against the City under this Agreement.

15.4. Termination under any provision of this Section shall not affect any right, obligation, or liability of Consultant or the City that accrued prior to such termination. Consultant shall surrender to the City items of work or portions thereof, referred to in **Section 19**, for which Consultant has received payment or the City has made payment.

Section 16. Suspension of Services

The City may suspend, delay, or interrupt all or any part of the Services for such time as the City deems appropriate for its own convenience by giving written notice thereof to Consultant. An adjustment in the time of performance or method of compensation shall be allowed as a result of such delay or suspension unless the reason for the delay is within Consultant's control. The City shall not be responsible for Services performed by any subcontractors after notice of suspension is given by the City to Consultant. Should the City suspend, delay, or interrupt the Services and the suspension is not within Consultant's control, then the City shall extend the time of completion by the length of the delay.

Section 17. Modification/Addendum

Any modification of the provisions of this Agreement shall not be enforceable unless reduced to writing and signed by both the City and Consultant. A modification is a written document, contemporaneously executed by the City and Consultant, which increases or decreases the cost to the City over the agreed Compensation Amount in **Section 4** of this Agreement, or changes or modifies the Scope of Work or the time for performance. No modification shall be binding or effective until executed, in writing, by both Consultant and the City. In the event Consultant receives any communication of whatsoever nature from the City, which communication Consultant contends gives rise to any modification of this Agreement, Consultant shall, within five (5) days after receipt, make a written request for modification to the City's Project Manager in the form of an Addendum. Consultant's failure to submit such written request for modification in the form of an Addendum shall be the basis for refusal by the City to treat said communication as a basis for modification or to allow such modification. In connection with any modification to this Agreement affecting any change in price, Consultant shall submit a complete breakdown of labor, material, equipment, and other costs. If Consultant incurs additional costs or devotes additional time on Project tasks, the City shall be responsible for payment of only those additional costs for which it has agreed to pay under a signed Addendum. To be enforceable, the Addendum must describe with particularity the nature of the change, any delay in time the Addendum will cause, or any increase or decrease in the Compensation Amount. The Addendum must be signed and dated by both Consultant and the City before the Addendum may be implemented.

Section 18. Access to Records

The City shall have access, upon request, to such books, documents, receipts, papers, and records of Consultant as are directly pertinent to this Agreement for the purpose of making audit, examination, excerpts, and transcripts during the term of this Agreement and for a period of four (4) years after termination of the Agreement, unless the City specifically requests an extension. This clause shall survive the expiration, completion, or termination of this Agreement.

Section 19. Property of the City

19.1. Originals or certified copies of the original work forms, including but not limited to documents, drawings, tracings, surveying records, mylars, spreadsheets, charts, graphs, modeling, data generation, papers, diaries, inspection reports, and photographs, performed or produced by Consultant under this Agreement shall be the exclusive property of the City and shall be delivered to the City prior to final payment. To the extent that the Work Product includes notes, terms, or details that have been developed by Consultant, or it's consultants, in the course of their practice over the years, then the Consultant, or it's sub-contractors, shall retain the ownership of such notes, terms, or details. Any statutory or common law rights to such property held by Consultant as creator of such work shall be conveyed to the City upon request without additional compensation. Upon the City's written approval, and provided the City is identified in connection therewith, Consultant may include Consultant's work in its promotional materials. Drawings may bear a disclaimer releasing Consultant from any liability for changes made on the original drawings and for reuse of the drawings subsequent to the date they are turned over to the City.

19.2. Consultant shall not be held liable for any damage, loss, increased expenses, or otherwise, caused by or attributed to the reuse by the City or its designees of all work performed by Consultant pursuant to this Agreement without the express written permission of Consultant.

19.3. Reuse or modification of the Consultant's Work Product in any manner, or authorization of reuse or modification by others, without the Consultant's professional involvement will be at the user's sole risk and without liability to the Consultant.

Section 20. Notices

Any notice required or permitted under this Agreement shall be in writing and shall be given when actually delivered in person or forty-eight (48) hours after having been deposited in the United States mail as certified or registered mail, addressed to the addresses set forth below, or to such other address as one party may indicate by written notice to the other party.

To City: City of McMinnville
Attn: Leland Koester
3500 NE Clearwater Drive
McMinnville, OR 97128

To Consultant: Jacobs Engineering Group Inc
Attn: Joshua Koch
2020 SW Fourth Ave, 3rd Floor
Portland, OR 97201

Section 21. Miscellaneous Provisions

21.1. Integration. This Agreement, including all exhibits attached hereto, contains the entire and integrated agreement between the parties and supersedes all prior written or oral discussions, representations, or agreements. In case of conflict among these documents, the provisions of this Agreement shall control.

21.2. Legal Effect and Assignment. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, personal representatives, successors, and assigns. This Agreement may be enforced by an action at law or in equity.

21.3. No Assignment. Consultant may not assign this Agreement, nor delegate the performance of any obligations hereunder, unless agreed to in advance and in writing by the City.

21.4. Adherence to Law. In the performance of this Agreement, Consultant shall adhere to all applicable federal, state, and local laws (including the McMinnville Code and Public Works Standards), including but not limited to laws, rules, regulations, and policies concerning employer and employee relationships, workers compensation, and minimum and prevailing wage requirements. Any certificates, licenses, or permits that Consultant is required by law to obtain or maintain in order to perform the Services described on **Exhibit A**, shall be obtained and maintained throughout the term of this Agreement.

21.5. Governing Law. This Agreement shall be construed in accordance with and governed by the laws of the State of Oregon, regardless of any conflicts of laws. All contractual provisions required by ORS Chapters 279A, 279B, 279C, and related Oregon Administrative Rules to be included in public agreements are hereby incorporated by reference and shall become a part of this Agreement as if fully set forth herein.

21.6. Jurisdiction. Venue for any dispute will be in Yamhill County Circuit Court.

21.7. Legal Action/Attorney Fees. If a suit, action, or other proceeding of any nature whatsoever (including any proceeding under the U.S. Bankruptcy Code) is instituted in connection with any controversy arising out of this Agreement or to interpret or enforce any rights or obligations hereunder, the prevailing party shall be entitled to recover attorney, paralegal, accountant, and other expert fees and all other fees, costs, and expenses actually incurred and reasonably necessary in connection therewith, as determined by the court or body at trial or on any appeal or review, in addition to all other amounts provided by law. If the City is required to seek legal assistance to enforce any term of this Agreement, such fees shall include all of the above fees, whether or not a proceeding is initiated. Payment of all such fees shall also apply to any administrative proceeding, trial, and/or any appeal or petition for review.

21.8. Nonwaiver. Failure by either party at any time to require performance by the other party of any of the provisions of this Agreement shall in no way affect the party's rights hereunder to enforce the same, nor shall any waiver by the party of the breach hereof be held to be a waiver of any succeeding breach or a waiver of this nonwaiver clause.

21.9. Severability. If any provision of this Agreement is found to be void or unenforceable to any extent, it is the intent of the parties that the rest of the Agreement shall remain in full force and effect, to the greatest extent allowed by law.

21.10. Modification. This Agreement may not be modified except by written instrument executed by Consultant and the City.

21.11. Time of the Essence. Time is expressly made of the essence in the performance of this Agreement.

21.12. Calculation of Time. Except where the reference is to business days, all periods of time referred to herein shall include Saturdays, Sundays, and legal holidays in the State of Oregon, except that if the last day of any period falls on any Saturday, Sunday, or legal holiday observed by the City, the period shall be extended to include the next day which is not a Saturday, Sunday, or legal holiday. Where the reference is to business days, periods of time referred to herein shall exclude Saturdays, Sundays, and legal holidays observed by the City. Whenever a time period is set forth in days in this Agreement, the first day from which the designated period of time begins to run shall not be included.

21.13. Headings. Any titles of the sections of this Agreement are inserted for convenience of reference only and shall be disregarded in construing or interpreting any of its provisions.

21.14. Number, Gender and Captions. In construing this Agreement, it is understood that, if the context so requires, the singular pronoun shall be taken to mean and include the plural, the masculine, the feminine and the neuter, and that, generally, all grammatical changes shall be made, assumed, and implied to individuals and/or corporations and partnerships. All captions and paragraph headings used herein are intended solely for convenience of reference and shall in no way limit any of the provisions of this Agreement.

21.15. Good Faith and Reasonableness. The parties intend that the obligations of good faith and fair dealing apply to this Agreement generally and that no negative inferences be drawn by the absence of an explicit obligation to be reasonable in any portion of this Agreement. The obligation to be reasonable shall only be negated if arbitrariness is clearly and explicitly permitted as to the specific item in question, such as in the case of where this Agreement gives the City "sole discretion" or the City is allowed to make a decision in its "sole judgment."

21.16. Other Necessary Acts. Each party shall execute and deliver to the other all such further instruments and documents as may be reasonably necessary to carry out this Agreement in order to provide and secure to the other parties the full and complete enjoyment of rights and privileges hereunder.

21.17. Interpretation. As a further condition of this Agreement, the City and Consultant acknowledge that this Agreement shall be deemed and construed to have been prepared mutually by each party and it shall be expressly agreed that any uncertainty or ambiguity existing therein shall not be construed against any party. In the event that any party shall take an action, whether judicial or otherwise, to enforce or interpret any of the terms of the Agreement, the prevailing party shall be entitled to recover from the other party all expenses which it may reasonably incur in taking such action, including attorney fees and costs, whether incurred in a court of law or otherwise.

21.18. Entire Agreement. This Agreement and all documents attached to this Agreement represent the entire agreement between the parties.

21.19. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original Agreement but all of which together shall constitute one and the same instrument.

21.20. Authority. Each party signing on behalf of Consultant and the City hereby warrants actual authority to bind their respective party.

The Consultant and the City hereby agree to all provisions of this Agreement.

CONSULTANT:	**CITY:**
Jacobs Engineering Group Inc.	CITY OF McMINNVILLE
By:_____	By:_____
Print Name:_____	Print Name:_____
As Its:_____	As Its:_____
Employer I.D. No._____	

APPROVED AS TO FORM:

_____
City Attorney
City of McMinnville, Oregon

Exhibit A

Agreement for Professional Services for the City of McMinnville Water Reclamation Facility (WRF) and Conveyance System Master Plan Updates Project 2022-5

PROJECT DESCRIPTION

The City of McMinnville's (City) Water Reclamation Facilities Plan (2009, CH2M HILL/West Yost) recommended expanding the WRF in conjunction with reducing conveyance system infiltration and inflow (I&I) to address future wastewater treatment needs. Since 2009, the City has implemented some recommended projects and deferred others, resulting in cost effective reduction of I&I and expanded WRF treatment capacity. Deferred projects at the WRF are attributable to: I&I improvements; lack of NPDES permit renewal by the Oregon Department of Environmental Quality (DEQ); and, to population, thus flows and loads, not increasing as projected in 2009. However, recent changes to the Urban Grown Boundary, movement by DEQ on a new NPDES permit, and aging infrastructure necessitate updates to the WRF and conveyance system planning documents.

The project approach is based on delivering planning documents in a phased approach to update the City's Master Plan for conveyance and Facilities Plan for treatment. Early tasks will primarily focus on conveyance system planning, conveyance system capacity, and condition assessment of major conveyance pump stations and WRF treatment processes. Additionally, early work will include support for the City's ongoing NPDES renewal process. Based on the results of this work and as authorized to proceed by the City, the work will focus on developing conveyance system and WRF improvement alternatives and developing Capital Improvements Plan (CIP) and System Development Charge (SDC) analyses. Finally, draft and final planning documents will be developed as project decisions and the City's new NPDES permit are finalized. The result will be a new Conveyance System Master Plan and a new WRF Facility Plan based on 2019 guidance issues by DEQ.

Scope for the project duration is included herein, based on knowledge and understanding of project needs. Budget for Additional Services is included to account for unknowns in the planning process. Tasks will generally proceed sequentially with the City issuing notice to proceed before Consultant begins each task. It is anticipated that initial notice to proceed will apply to Tasks 1 through 7, and subsequent task will be authorized to proceed as the project progresses. The work is proposed on a Time & Materials basis with a not-to-exceed budget of $1,397,193.

BASIS OF DESIGN SCOPE AND FEE DEVELOPMENT

The following key assumptions were made in the compilation of this scope of work and the estimation of the level of effort:

1. The work on this project will last 28 months from authorization to proceed and be completed in calendar year 2024.
2. No additional workshops or deliverables are included beyond those identified in the Work Approach. Meeting format will be split with half in-person and half virtual.
3. All deliverables will be provided electronically in PDF format, unless noted otherwise.
4. The conceptual planning of infrastructure will be based on the federal, state, and local codes, standards and regulations in effect on the effective date of the authorization to proceed. Any changes in these codes may necessitate a change in scope.

City-Provided Services

1. City will provide to Consultant all data in City's possession relating to Consultant's services on the Project. Consultant will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by the City.
2. City will make its facilities accessible to Consultant as required for Consultant's performance of its services and will provide labor and safety equipment as required by Consultant for such access. City will perform, at no cost to Consultant, such tests of equipment, machinery, pipelines, and other components of City's facilities as may be required in connection with this project.
3. For flow monitoring program, City will provide traffic control during meter install and removal.
4. City will give prompt notice to Consultant whenever City observes or becomes aware of any development that affects the scope or timing of Consultant's services, or of any defect in the work of Consultant.
5. The City will examine information submitted by Consultant and render in writing or otherwise provide decisions in a timely manner.
6. The City will furnish required information and approvals in a timely manner.
7. The City will develop any required permit applications, supporting information, and required reports and pay all permit processing fees, if applicable.

WORK APPROACH

The project work will be carried out using a phased delivery approach to assure a logical and progressive completion of the work. City representative will provide authorization to proceed on a task-by-task basis. A specific list of work products and deliverables are identified in the tasks below. Review workshops will be conducted with the City's personnel, key individuals from the Consultant's project team and others as needed; the review workshops will be conducted at critical milestones as identified in the following sections.

Task 1: Project Management
Task 2: Conveyance System Data Request, Collection, and Review
Task 3: Condition Assessment
Task 4: Conveyance System Hydraulic Model Update

Task 5: Conveyance System Basis of Planning
Task 6: Conveyance System Existing System Capacity and Condition Analysis
Task 7: Regulatory Support
Task 8: Conveyance System Improvement Alternatives Analysis
Task 9: WRF Analysis
Task 10: Capital Improvements Program
Task 11: Rate and System Development Charge Study
Task 12: Conveyance System Master Plan Documentation Deliverables and Support
Task 13: Water Reclamation Facilities Plan Documentation Deliverables and Support
Task 14: Additional Services Allowance

Task 1: Project Management

The purpose this task is to establish and monitor compliance with project budget and schedule.

Task 1.1: Develop Project Instructions and Management Plan

Prepare a project management plan so that the Consultant and City staff have a mutual understanding and endorsement of schedules, budgets, work activities, and responsibilities. The plan will include scope of work, schedule, and budget; project goals and task objectives; work plans, deliverables, and schedules for major tasks; change management plan; team organizational chart; communication and documentation management plan; deliverable tracking system; and technical review requirements.

Task 1.2: Project Chartering and Kick-Off Meeting

The Project Manager will hold a two-hour in-person chartering/kick-off meeting at the beginning of the project to establish goals and vision of the project, identify roles and responsibilities of team members, review lessons learned from the team's collective project experience, and align the team to the City's vision. The goal is to get endorsement from the Project Team for a successful project delivery.

Task 1.3: Progress Meetings and Updates

The Consultant's project manager will talk or email with the City's project manager weekly to review project progress and discuss upcoming work activities. The Consultant's project manager will provide monthly email summaries of work completed, upcoming activities and unresolved issues. All in-person meetings and workshops will be held at the WRF unless noted otherwise. When possible, meetings will be conducted over video conference.

Task 1.4: Invoicing, Cost and Schedule Control

The Consultant's project manager will manage, administer, coordinate, and integrate work of the Consultant's team as required to deliver the project within budget and on schedule. The Consultant's project manager will prepare and submit to the City's project manager on a monthly basis, a brief cost and schedule status report and updated summary project schedule showing actual versus projected. The report shall include a narrative description of progress to-date, actual costs for each major task, estimates of percent complete, and potential cost variances.

Task 1.5: Quality Management

The Consultant will carry out a quality assurance program (QAP). The purpose of this QAP is to monitor the quality of the Project through the use of internal quality assurance/quality control (QA/QC) reviews as described herein. The Consultant will manage task-specific internal QA/QC review activities with the senior review team. A QC review will be performed on calculations. A formal QC review will be performed prior to the City's review.

A Quality Management Plan (QMP) will be prepared for the project to serve as a guide for all tasks of the project. Key features of the QMP will include:

- A single point of contact responsible for all quality management.
- Independent quality review performed by task-specific quality reviewers to provide critical analysis without bias.
- Procedures for engineers; detailed checks of reports, and calculations.

Quality review documentation will demonstrate that quality review process is complete and review comments are acceptably addressed as a component of the overall records management system. The following documentation will be prepared, collected, and properly stored in the project records system:

- Technical Verification Form to document that internal quality reviews have taken place.
- Review-related correspondence with City staff and other external agencies or entities

The level of effort for this task includes preparation of the QMP and management of the QA/QC process.

Deliverables:

- *Project Management Plan.*
- *Chartering/kick-off meeting notes.*
- *Monthly status reports and invoices.*

Task 2: Conveyance System Data Request, Collection, and Review

The purpose this task is to develop a data request list for the City and coordinate data review for the project. The task also includes flow monitoring.

Task 2.1: Request and Review Existing Data

In this task, the Consultant will develop a formal data request for the City to provide information required to complete the work. Critical data needs include population projections, land use or zoning, current sanitary sewer GIS, background GIS, as-built drawings for constructed improvements not in the GIS, proposed capital sewer projects through FY2025, pump station pump curves and set points, wet well dimensions, operational data related to diversions, available database of pipe condition, and historical flow monitoring, precipitation, and SCADA data. Data needs from the City include:

- Sanitary Sewer GIS files including pipelines, access structures, pump stations, and diversions. Critical data include invert and rim elevations for trunk lines.
- Background GIS including land use/zoning, development status by parcel, topography, roads, City Urban Growth Boundary, etc. Data will be supplemented with available background GIS from County sources.
- Record Drawings of selected improved conveyance system infrastructure if not available in GIS.
- Available population and employment projections for 20-year planning horizon. Data will be supplemented with long-term population projections from the Portland State University Population Research Center.
- Flow data (peak influent flow in 15-minute to hourly increments) from the SCADA system for select pump stations and at the treatment facility for the last 10 years.
- Constituent load data (daily) at the treatment facility for the last 5 years. Constituent parameters (as available) including CBOD, TSS, Ammonia, and Phosphorus loads.
- Historic precipitation data representative of the area in 15-min to hourly readings for the past 10-years and daily readings for available period of record. Consultant will request local data from the City and supplement by downloading data from national sources (NOAA).
- Condition assessment data linked to GIS asset IDs including scoring, structural defects, and I&I defects.
- Historic sewer conveyance system maintenance reports, operation and maintenance reports, and inspection records for last 5 years.
- Winter-time water consumption records by parcel (2020-2022) if available from McMinnville Water and Light. If unavailable, land use/zoning data and flow monitoring data will be used.
- Conveyance system capital project list, as available, through fiscal year 2025.

Assumptions:

- *Manhole and pipeline surveying for inverts and rim elevations are excluded from this scope of work.*
- *Two, one-hour virtual meetings to coordinate data request with two Consultant staff.*

Deliverables:

- *Data request list and tracking spreadsheet.*

Task 2.2: Flow Monitoring Program

Flow monitoring is required to calibrate existing system dry weather and wet weather flows for the City's hydraulic model and to identify variability in the existing system to wet weather (rainfall derived infiltration and inflow, I&I). Flow monitoring will be performed for a four-month period from October 2022 thru January 2023. ADS Environmental (Subcontractor) will perform the flow monitoring, including meter installation, meter maintenance, and meter extraction.

The Consultant will develop a flow monitoring plan (GIS based map) to identify up to twelve locations for temporary flow monitoring. City staff will confirm selection of flow monitoring locations prior to flow monitoring period. Subcontractor will perform flow monitoring at up to twelve locations and precipitation monitoring at one temporary rain gauge location.

Mobilization

- Flow Monitoring Kick-off Meeting. The flow monitoring program will begin with a flow monitoring kick-off meeting between representatives of Consultant, City, and Subcontractor. The purpose of the kick-off meeting is to discuss scope of field work, establish lines of communication, set milestones, and set the flow monitoring schedule. The kick-off meeting will be virtual.
- Site Locations. Subcontractor will work with Consultant and City to identify up to 12 locations for temporary flow meter installation and one location for temporary rain gauge installation.
- Site Investigation. A Subcontractor field crew will perform site investigations. Subcontractor will utilize a 2-person field crew for fieldwork and comply with Federal standards for confined-space entry. The proposed flow monitoring location will be located, inspected, and verified for hydraulic suitability. Subcontractor will also check for debris in the manhole that could impact data quality.
- Site Reports. Subcontractor will generate site reports upon completion of the site investigations. The site reports will include a sketch of the general location, physical characteristics, and diameters of the proposed monitoring locations, manhole depths, flow measurements, and other comments pertinent to the location, such as any special traffic or safety issues.
- Equipment. Subcontractor will utilize the ADS® Triton+ flow monitor during the course of this project. A typical monitor installation will include a peak combo

sensor that includes in the same housing an up looking ultrasonic depth, redundant pressure depth, and continuous wave peak velocity sensor mounted at the invert.

- Monitor Activation. Once installed, the monitors will be activated and set to take readings of at least 15-minute intervals. Rain gauge data will also be collected in 15-minute intervals. The Subcontractor field crew will take manual depth readings with a ruler and velocity readings with a portable, instantaneous velocity meter in order to confirm the monitor is collecting accurate data based on the actual existing hydraulic conditions at each location.

Flow Monitoring

- Flow Monitoring. Once the monitors are installed and verified to be in working order, Subcontractor will monitor the flows for a maximum period of four months ("monitoring period"). This initial monitoring period may be extended based on mutual consent and written agreement of additional work and price for such additional work.

- Data Collection and Equipment Maintenance. The Subcontractor field crew will return to each location and perform site maintenance and site confirmations twice during the monitoring period. Equipment maintenance includes cleaning depth and velocity sensors, confirmations as needed, and checking an installation to make sure that the ring is secure in the pipe. The Subcontractor data analyst will also review the data on a regular basis throughout the monitoring period.

- Demobilization. The Subcontractor field crew will continue data collection and confirmation until the end of the monitoring period. Once authorized, the Subcontractor field crew will remove the flow monitors, rain gauge, and deliver final data to the Subcontractor data analyst.

Data Editing and Reporting

- Data Analysis. Upon completion of the monitoring period, the Subcontractor data analyst will analyze and finalize the data. The data analyst will directly calculate flow using the continuity equation from recorded depth and average velocity data. Flow quantities, as determined by the continuity equation, will be plotted. The analyst will also utilize scatter plots (depths vs. velocity readings) to verify monitor accuracy.

- Data Delivery and Final Report. Subcontractor will report final depth, velocity and quantity for reviewing and downloading via the ADS PRISM online reporting system. Subcontractor will provide Consultant access to the data online or Subcontractor will deliver data in electronic format.

Assumptions:

- *City will provide access to the site of work with sufficient area for placement of personnel and equipment, including all right-of-way and ramps, if required.*

- *City will pay for any permit fees and provide traffic control services during flow meter installation, equipment maintenance, and demobilization activities.*
- *If sewer line is dirty and full of debris, City staff will ensure that selected sites have been jet cleaned to minimize hydraulic deficiencies or select an alternate location for meter installation.*
- *City staff will provide any known information concerning bypasses, overflows, base flows, critical surcharge areas, and maintenance habits.*
- *All field work will be completed by Subcontractor with assistance from City staff as described. This task excludes time for field work by Consultant staff.*
- *Subcontractor flow monitors can provide high accuracy, precise (repeatable) flow data. However, under some complex hydraulic conditions such as frequent backwater, surcharging, reverse flows, and complex bends in the flow path leading to/from the associated manhole monitor location, data accuracy may be diminished. It is understood that data quality may be compromised in locations immediately upstream of pump stations or other locations where the above listed hydraulic conditions can sometimes be persistent.*
- *Subcontractor will provide a health and safety plan for all field activities.*
- *Two two-hour virtual meetings between Subcontractor, two Consultant staff, and City to coordinate flow monitoring activities.*

Deliverables:

- *Flow Monitoring Plan Map.*
- *Flow Monitoring Data.*
- *Flow Monitoring Report.*

Task 3: Condition Assessment

After initial data gathering and project kickoff, the Jacobs team will visit the WRF and conveyance pump stations to perform onsite inspection and condition assessment (CA). The following list dictates which equipment and facilities will be assessed. The CA will take place over two visits – one during the winter when most equipment is operating and a second in summer when basins/equipment may be taken offline for inspection. The following systems are included:

- Conveyance Pump Stations (up to five)
- Pre-Screening Facility
- Raw Sewage Pump Station
- Septage Receiving
- Headworks
- Oxidation Ditches
- Secondary Clarifiers
- Return Sludge Pump Stations
- Tertiary Clarifiers
- Tertiary Filters
- Ultraviolet Disinfection

The objectives of the CA are to:

- To better understand how the facilities are operated and maintained. Jacobs will also conduct interviews with City staff to supplement the data collected.
- Identify whether the equipment, systems or facilities in the list above need upgrade or replacement to last through the planning period.
- Note any components that should be considered for more in-depth future assessments.

Jacobs' CA team will work with City staff and use our Asset Condition Evaluation System (ACES) system to evaluate the physical condition of the components listed above. The CA report will include identified deficiencies and planned corrective actions for the components included. This CA will not be completed for those components that cannot be inspected during the time of the CA. A CA of the remaining components will not be performed.

Jacobs will provide a schedule for performing CAs on equipment in the list above. The schedule will be based on seasonal flows, availability of redundant process units, and other considerations.

In addition to the CA elements described above, the following specific activities are included:

- For structural/seismic items, a Jacobs structural engineer will review pertinent record drawings, available data, and structure performance history provided by the City.
- To assess the condition and capacity of the Pre-Screening Facility, a wastewater process engineer will perform a site visit.

Assumptions:

- *The Jacobs CA specialist will make two visits, each up to five days, including travel time.*
- *Jacobs will perform a CA on 150-200 assets (combined treatment and pump stations).*
- *Each asset will be assigned a score from 1-5.*
- *Condition assessment will include one-day (including travel time) by a Jacobs process engineer to review the Pre-Screening facility.*
- *Condition assessment will include an 8-hour site visit by a structural engineer to be accompanied by City staff familiar with the WRF and pump stations. Assessment will be limited to materials/structures visible. This effort is not a Seismic Resiliency Assessment.*
- *Condition assessment will include a one-day (including travel) site visit by project manager and facilities planning lead.*
- *No arc flash analysis, sampling, laboratory testing, subsurface investigations, geotechnical analysis, destructive/invasive testing, or WRF operations are included in this task.*
- *Support systems/infrastructure, such as stormwater, potable water, and electrical, are not included.*
- *Jacobs CA team will follow Jacobs jobsite safety procedures and any additional City safety requirements.*
- *Reliability analysis of each piece of equipment is not part of this task.*
- *This task excludes condition assessment of pipelines and access structures (manholes).*

Deliverables:

- *Draft and final Condition Assessment Report*
- *The final Condition Assessment Report will be included as an appendix to the Conveyance Master Plan and the WRF Facility Plan.*
- *Seismic Memorandum listing data sources reviewed, key findings, site observations, and recommendations. The memorandum will be included as an appendix to the Conveyance Master Plan and the Water Reclamation Facilities Plan.*
- *Pre-Screening Facility Memorandum summarizing the capacity, condition, and recommendations related to this facility. The memorandum will be included as an appendix to the WRF Facility Plan.*

Task 4: Conveyance System Hydraulic Model Update

The purpose of this task is to develop a calibrated conveyance system model to assess existing and future system capacity. Consultant will update and calibrate the City's existing conveyance system model including collector and trunk lines, pump stations, force mains, and Raw Sewage Pump Station (RSPS).

Task 4.1: Model Evaluation and Selection

Consultant will prepare a comparison matrix of model software options for the City with advantages and disadvantages for up to five third-party software platforms. Consultant will facilitate a meeting to present the matrix and discuss current and future uses of the model. The outcome of the meeting will be selection of a model software to be used for the remainder of project and for the model deliverable.

Assumptions:

- *One two-hour virtual meeting to review and select modeling software attended by two Consultant staff.*
- *Consultant will utilize internal software licensing of the selected software for the duration of the project at no cost to the City.*
- *To utilize the model outside of services provided by Consultant, the City will need to license software directly from the third-party vendor. Third party licensing costs are excluded from this contract.*

Deliverables:

- *Model matrix comparison*
- *Meeting notes on software selection*

Task 4.2: Update Conveyance System Model Network

Consultant will utilize the City's GIS as the basis for the updated hydraulic model. The model identifiers for pipelines and manholes will be consistent with the GIS unique identifiers to maintain a direct link between the model and GIS. Trunk piping will be added to the model. After the initial import of the GIS data to the model, Consultant will review the profiles of all modeled pipelines and submit a map to the City where data appears suspect (i.e., adverse slopes) for clarification. The Consultant will revise the model network based on City comments and as-built drawings for one iteration of comments. Pump station information will be implemented into the model based on as-built drawings showing wet well dimensions and control settings and pump curves provided by the City.

Assumptions:

- *The City GIS data includes invert and rim elevations for access structures, pipeline diameters, and pipeline invert elevations. Consultant field verification of the data for accuracy is not included.*
- *This task limits extraction of data from as-built drawings to a maximum of 500 access structures and pipelines.*

Deliverables:

- *Electronic (PDF) map highlighting questionable network data and elevations for City comment.*

Task 4.3: Update Model Flow Loading

Consultant will develop existing system dry weather flow loading from flow monitoring data, land use/zoning data, development status data by parcel, and winter-time water consumption data (if available). Consultant will review flow monitoring data collected from the City SCADA system and from the temporary flow monitoring. Consultant will utilize the data to estimate per acre loading rates by zoning class. The unit loading rates will be compared to industry standards and other utilities in Oregon for consistency. All system loading will be scaled to flow rates established during dry weather conditions at the flow monitoring locations. Parcel flows will be assigned to the model network based on proximity to existing sanitary sewer infrastructure. Sewersheds will be delineated for wet weather impact by applying a buffer to all existing sanitary sewer pipelines.

Task 4.4: Model Calibration for Dry and Wet Weather Conditions

Consultant will perform model calibration to develop an accurate estimate of flows for dry and wet weather conditions at each temporary meter location. Model parameters will be adjusted such that modeled flows and depths match meter data within a specified tolerance during a recent dry weather period and multiple wet weather events. Consultant will perform the following:

- Extract existing dry weather flow data for October 2022 temporary flow monitoring period at temporary flow meter sites and 2022 summer months at the WRF and pump station sites. Update dry weather diurnal patterns and perform dry weather flow calibration for each meter site. Calibrate peak dry weather flows and depths such that model results match meter data within +/- 5 percent.

- Evaluate rain gauge and flow monitoring data from the October 2022 to January 2023 temporary flow monitoring period. Also, review historic rain gauge and flow monitoring data at the WRF for the previous five years. Select a primary wet weather calibration period of at least one week which represents the largest wet weather impact from the temporary flow monitoring period and includes several wet weather events. Update wet weather unit hydrographs and perform wet weather calibration for each meter location for the primary calibration period. Calibrate model such that model results match flow meter data within a range of +25% to -15% for peak flows, and +20% to -10% for peak storm volumes and flow depths. Review model calibration for accuracy during two historic wet weather periods at the treatment plant and pump stations

Deliverables:

- *A draft and final technical memorandum summarizing the results of the model calibration and the model update.*

Task 5: Conveyance System Basis of Planning

The purpose of this task is to develop a basis for planning including population and employment projections, land use/zoning data summary, and flow and load projections at the WRF and flow projections within the conveyance system. Also, document design criteria and regulatory drivers for evaluating conveyance system capacity including a minimum 5-year frequency design storm.

Task 5.1: Study Area Characteristics

Consultant will perform the following to document the basis for planning:

- Growth Projections. Historic and future growth rates, population, and employment in 5-year increments to 2045 and estimated at buildout. Provide list of data sources provided by the City, County, and Portland State Population Research Center.
- Base Map. Develop a base map from GIS representing the study area boundaries, urban growth boundary, conveyance system service area, location of the WRF, major roadways, topography, and major waterways. Incorporate land use/zoning classes into the mapping.
- Land use/Zoning. Summarize developed acres, vacant acres, and re-developable acres by zoning class within the urban growth boundary.

Assumptions:

- *Consultant will summarize study area data provided by other sources as provided by the City's Planning Department or available on-line.*
- *The study area is limited to the existing urban growth boundary.*
- *Two one-hour virtual meetings to coordinate planning data with City staff with two Consultant staff.*

Deliverables:

- *A draft and final technical memorandum documenting the study area characteristics, which will form the basis of a master plan chapter.*

Task 5.2: Design Criteria

Consultant will work with City staff to define design standards applicable to the City's conveyance system to define system deficiencies and capacity improvement sizing. Design standards include surcharge clearance (wet weather), depth/diameter ratio (dry weather), maximum velocity, scouring velocity, and pump station firm capacity (redundancy). These standards will be based on Oregon Department of Environmental Quality (DEQ) regulations and industry best practices or a more conservative standard, set by the City.

Consultant will work with City staff to select an appropriate design storm event for evaluating conveyance system capacity and the City's goals for level of service including:

- Review of historic storm events for previous 10-years and impact of peak flow at the WRF and pump stations (based on available data).

- Review of period of record daily precipitation records to establish 24-hour, 48-hour, and 72-hour frequency storm depths for the City.
- Review of flow reduction at WRF and pump stations based on I&I rehabilitation work over the past 10-years (based on available data).
- Selection of three historic storm events to evaluate flow frequency vs precipitation frequency to understand system risks from precipitation intensity and volume, and associated impact on the conveyance and treatment systems.
- Review of system risks and Oregon DEQ guidelines for conveyance systems which prohibit sanitary sewer overflows for a minimum 5-year frequency winter storm and 10-year frequency summer storm.
- Review of climate resiliency guidelines from the State of Oregon and climate modeling from the University of Washington Climate Impacts Group for the Northwest Region (*Projected Changes in Extreme Precipitation*, grid tool includes specific data that can be applied at local level).

Assumptions:

- *The design criteria and design storm(s) agreed upon as part of this task will be used to identify hydraulic deficiencies in the conveyance system and will be used to define future flow projections.*
- *One virtual and one in-person meeting, two hours each, with City staff to discuss and select design criteria and design storm, attended by two Consultant staff.*

Deliverables:

- *A draft and final technical memorandum documenting the design criteria, sources of regulatory requirements for the conveyance system, and design storm selection, which will form the basis of a master plan chapter.*

Task 5.3: Flow and Load Updates

Consultant will perform the following to update system-wide flow and load projections:

- Review recent documentation of flows and loads prior to 2021 expansion of the urban growth boundary.
- Perform base flow projections including:
    - Plot base flow historical trends for five years. Evaluate base flow contributions from wet industry using local industrial measurements from the City (if available). Summarize per capita and per employee wastewater usage from historical data subtracting out the wet industrial component of the base flow. Compare current per capita and employee wastewater usage to 2009 plan documentation.
    - Develop preliminary base flow projections utilizing population and employment growth projections in the City. Consider future wet industry flows based on information provided by the City.

- Evaluate land use data, zoning densities, and overlay with localized population and employment projections. Calibrate existing base flows including per capita wastewater usage, and per employee wastewater usage with land use data and existing population and employment summaries.
- Project future base flows in 5-year increments to 2045 and buildout utilizing population and employment estimates. Utilize assumptions for future wet industry provided by the City.

- Develop peaking factors and project future flow rates
  - Utilize historic data to develop peaking factors for maximum month dry weather, maximum month wet weather, maximum week wet weather, peak daily wet weather, peak hour wet weather, and peak instantaneous wet weather.
  - Develop conveyance system future model scenarios in 5-year increments to 2045 and buildout by applying dry weather unit flow factors by zoning class to vacant and redeveloped lands. Apply diurnal patterns by meter basin. Parcel flows will be assigned to the model network based on proximity to existing sanitary sewer infrastructure and topography. Extrapolate wet weather sewersheds for undeveloped areas. Apply wet weather unit hydrographs representing newer development to future service areas.
  - Utilize conveyance system model to refine peaking factors utilizing a 5-year frequency storm and selected historical periods of precipitation for max week and max month.
  - Extrapolate future flow rates in 5-year increments to 2045 and at buildout utilizing the peaking factors described above with confirmation from the conveyance system.
  - Utilize Oregon State Department of Environmental Quality (DEQ) *Guidelines for Wet Weather and Peak Flow Projections* for future flow projections. Compare flow projection results for DEQ method to modeling methods and historical data methods described above. The DEQ method is intended to represent a minimum baseline to check the more detailed modeling approach.

- Perform base constituent load projections for CBOD, TSS, Ammonia, and Phosphorus including:
  - Plot base load historical trends for five years. Evaluate base load contributions from wet industry using local industrial measurements from the City (if available). Summarize per capita and per employee wastewater loading from historical data subtracting out the wet industrial component of the base flow. Compare current per capita and employee wastewater loads to 2009 plan documentation.
  - Develop base load projections in 5-year increments to 2045 and buildout utilizing population and employment growth projections in the City.

Consider future wet industry loading specific to industry data provided by the City.

- Develop peak loading factors and project future peak loading for CBOD, TSS, Ammonia, and Phosphorus:
    - Utilize historic data to develop peak loading factors for max month dry weather, max week dry weather, max day dry weather, average wet weather, max month wet weather, max week wet weather, and max day wet weather.
    - Extrapolate future loading in 5-year increments to 2045 and at buildout utilizing the peaking factors described above.

Assumptions:

- *Two meetings with City staff to discuss and flow and load projections (combined meetings with Task 5.2).*

Deliverables:

- *A draft and final technical memorandum documenting the flow and load projections, which will form the basis of a master plan chapter.*

Task 6: Conveyance System Existing System Capacity and Condition Analysis

The purpose of this task is to develop a summary of existing conveyance system assets. Perform analysis to determine magnitude and timing of conveyance system capacity deficiencies. Summarize rainfall derived infiltration and inflow (I&I) impacts to the system by meter basin. Identify conveyance system asset replacement timing based on analysis. The existing system capacity and condition analyses will provide input to the improvement alternatives evaluation and I&I cost-effectiveness analysis in Task 8.

Task 6.1: Existing System Description

Consultant will review the description of existing conveyance system assets from the previous master plan and update description and mapping of the City's conveyance system assets. The description will include system background, service boundaries, and inventory of existing assets by age, size, and condition. Assets include existing conveyance system piping, access structures, pump stations, force mains, and diversion structures.

Consultant will interview the City operations and maintenance staff to understand conveyance system operation and maintenance protocols. Based on the interviews, Consultant will prepare a summary of the City's current operations and maintenance protocols and provide recommendations based on the *US Environmental Protection Agencies' Guide for Evaluating Capacity, Management, Operation, and Maintenance (CMOM) Programs at Sanitary Sewer Conveyance Systems*.

Assumptions:

- *One two-hour in-person meeting to interview City operations and maintenance staff, attended by two Consultant staff.*

Deliverables:

- *A draft and final technical memorandum documenting the existing system assets including operations and maintenance requirements, which will form the basis of a master plan chapter.*

Task 6.2: Characterize System Capacity and I&I

Consultant will utilize the calibrated hydraulic model to identify and map hydraulic (capacity) deficiencies and remaining system capacity based on the design criteria for peak dry weather conditions, and peak wet weather conditions during the selected design storm. Consultant will develop mapping and a brief summary of the following:

- Existing system hydraulic capacity and deficiencies (freeboard and flow depth, pump station capacity).
- Existing system I&I rates (peak I&I flow per net acre) by meter basin.
- Existing system remaining capacity (summarized as peak flow and equivalent dwelling units for pipelines and pump station in the hydraulic model).
- Future system hydraulic capacity and deficiencies in 5-year increments to 2045 and buildout (freeboard and flow depth, pump station capacity).
- Future system I&I rates by meter basin in 5-year increments to 2045 and buildout.

Deliverables:

- *Electronic (PDF) mapping of existing and future system hydraulic capacity deficiencies with I&I rates and existing system remaining capacity.*
- *A draft and final technical memorandum documenting the existing system capacity and I&I, which will form the basis of a master plan chapter.*

Task 6.3: Existing System Capacity and Condition Risk Analysis

Consultant will work with City staff to establish a risk-based asset management framework to calculate consequence of failure and likelihood of failure for conveyance system assets based on available condition and capacity data. Other data categories that may be considered as part of the framework include seismic vulnerability and impact to community essential services. The framework will establish scoring definitions and weighting of risk categories to help prioritize an asset management program for both capacity and condition-based projects.

Consultant will apply the framework to pipeline assets and pump stations and develop risk score mapping to review with City staff. City staff will be asked to identify an "acceptable level of risk" for assets, above which level risk mitigation measures will be identified in Task 8.

Assumptions:

- *One virtual meeting and one in-person meeting, two hours each, to develop asset management framework and review risk scoring, attended by two Consultant staff.*

Deliverables:

- *A draft and final technical memorandum documenting the capacity and condition risk analysis including risk score mapping, which will form the basis of a master plan chapter.*

Task 7: Regulatory Support

Under this task, Jacobs will provide regulatory support, technical analyses, and develop documentation under the following tasks: Task 7.1 – Regulatory Review for the Water Reclamation Facilities Plan Update; Task 7.2 – Support for NPDES Permit Renewal; and Task 7.4 – Develop Biosolids Management Plan Update.

Task 7.1: Regulatory Review for Water Reclamation Facilities Plan Update

The City's NPDES Permit No. 101062 was issued in 2004 and is scheduled for renewal by Oregon Department of Environmental Quality (DEQ) in 2024. Evaluations of current discharge requirements and potential treatment process impacts due to regulatory changes will be evaluated. Projected regulatory requirements will be documented based on changes to DEQ guidelines and policies since the 2009 WRF Facilities Plan.

Jacobs will review water quality issues for the WRF discharge to the South Yamhill River, new NPDES Permit conditions and trends that would affect the WRF permit, and other wastewater treatment and discharge considerations for the WRF. Evaluation of existing and pending future discharge considerations will include temperature, ammonia toxicity, nutrients, metals (including aluminum and copper), mercury, organic chemicals, emerging contaminants of concern, bacteria limits, and future freshwater quality coliphage criteria (by EPA).

This task will document changes to water quality and wastewater treatment regulations in Oregon that will become drivers for the next WRF NPDES Permit renewal and for WRF projects over the next permit cycle including the following:

- Describe DEQ's 303(d) listings in the South Fork of Yamhill River, Total Maximum Daily Load (TMDL) process and planning, and potential impacts on the WRF.
- Define the discharge criteria for toxics based on current water quality criteria and available effluent chemistry and background ambient data by applying DEQ's Internal Management Directive - Reasonable Potential Analysis (RPA) Process for Toxic Pollutants.
- Develop updated dilution modeling runs based on current (2020-2022) and projected (2030 and 2040) effluent flows to validate dilution factors applied in the current RPA and provide projected (2030 and 2040) RPAs for planning purposes.
- Evaluate potential treatment process impacts due to regulatory changes and discharge requirements based on changes to DEQ guidelines and policies since the 2009 Facilities Plan, and document projected regulatory requirements.
- Review water quality issues and concerns in the Yamhill River including bacteria, ammonia, nutrients, temperature, toxics, and salmonid protection.
- Define effluent discharge limits and potential revisions to these limits to be assumed for this planning effort.
- Summarize the reliability and redundancy requirements for the WRF.

- Meet with DEQ to define existing, emerging, and potential future regulatory issues and requirements and their effect on current and proposed facilities.

Assumptions:

- *The WRF Facilities Plan Update will build upon and incorporate previous work to the extent practical from the 2009 WRF Facilities Plan and will comply with the 2013 DEQ Guidance document "Preparing Wastewater Planning Documents and Environmental Reports for Public Utilities".*
- *Three, 1-hour virtual meetings with City staff attended by three (3) Jacobs project team members.*
- *One, 1-hour virtual meeting with DEQ and City staff attended by three (3) Jacobs project team members*

Deliverables:

- *The results of this task will be documented in the Regulatory Review section of the Water Reclamation Facilities Plan Update. The RPA tables and dilution modeling input/output will be included in appendices to the Water Reclamation Facilities Plan Update.*

Task 7.2: Support for NPDES Permit Renewal

This task includes Jacobs activities to support the City during the NPDES permit renewal process with Oregon DEQ. These activities are assumed to extend through the issuance of the renewed permit, which is currently expected in 2024. Activities under this task include the following:

- Provide support and recommendations during permit renewal communications with DEQ, including requests for information, DEQ draft RPAs, and other material.
- Develop a comprehensive data quality evaluation on the effluent and receiving water data to be used in the permit renewal application.
- Support the City's existing NPDES permit application by providing supplementary information, including effluent and biosolids data, collected river data, and outfall dilutions for DEQ to apply in the NPDES permit renewal.
- Review draft Reasonable Potential Analysis (RPA) developed by Oregon DEQ.
- Review the Applicant Review Draft NPDES permit documents (permit, fact sheet, and public notice).
- Participate in up to 12, one-hour conference calls with the City to discuss permit renewal developments, Jacobs review comments and recommendations, and status, attended by two Jacobs project team members. At the City's direction, up to three of the one-hour conference calls with the City and DEQ to discuss permit renewal development.

These activities will be informed by the results of the activities under the Regulatory Review task, including development of the independent screening RPAs and BLM using data provided by the City, and the review of water quality issues for the receiving water.

Assumptions:

- *Jacobs will not communicate directly with DEQ except at the explicit direction of the City.*
- *All effluent and receiving water data will be provided in electronic tabular format (Excel spreadsheet) for Jacobs to review and evaluate. The City will also provide all associated laboratory reports including QAQC documentation (pdf format). The City will provide these data and reports to Jacobs within one week of receiving them from the laboratory.*
- *This scope does not include development of the permit renewal application (EPA Form 2A). This was prepared by the City and submitted in 2008.*
- *Up to two versions of an agency draft RPA will be provided to the City by DEQ for review and comment.*
- *One version of the Applicant Review Draft permit documents will be provided to the City by DEQ for review and comment.*
- *The review of the draft RPA will include temperature, ammonia, chlorine, and all toxics (pollutants of concern), for both Aquatic Life and Human Health criteria.*
- *The City will provide the Local Limits report (completed in 2022) for Jacobs to review for context and consistency with the permit renewal process.*

Deliverables*:*

- *Data Quality Evaluation (memorandum with attachments) – draft and final*
- *Written comments on the draft RPAs developed by DEQ – draft, final, and (if necessary) revised final memorandum*
- *Written comments on the permit renewal application (EPA Form 2A) developed by the City – via email and pdf markup if applicable.*
- *Written comments on the Applicant Review Draft Permit documents – draft, final, and (if necessary) revised final memorandum*

Task 7.3: Ambient Toxics Monitoring (Optional Task)

If the City has not collected ambient toxics monitoring data, develop a concise Quality Assurance Project Plan (QAPP) for collection and analysis of background ambient river samples to be used in the RPAs for the NPDES permit renewal. Submit the QAPP to DEQ for approval prior to sampling. These analytical results will be used in the RPA and are expected to forestall DEQ requirement for this sampling in the next NPDES permit.

City to arrange to collect and analyze four (4) receiving water samples over a 12-month period in the dry and wet season of 2022-2023 for analysis of the following parameters by Eurofins Test America (ETA) Lab in Corvallis: ammonia, total phosphorus, orthophosphate, dissolved and total recoverable metals (arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, selenium, silver, thallium, and zinc). Receiving water sampling will use clean methods employed by ETA. All samples will be collected upstream of the WRF outfall site and upstream of the bridge replacement on the South Yamhill River. Samples will be collected off the shoreline in free-flowing water.

Assumptions:

- *The City will contract directly with Eurofins Test America to collect and analyze samples. Jacobs will review results.*
- *Two, 1-hour virtual meetings with City staff attended by two (2) Jacobs project team members.*

***Deliverables**:*

- *QAPP.*
- *Data review.*

Task 7.4: Update Existing Biosolids Management Plan

The existing WRF Biosolids Management Plan (BMP) is associated with the existing NPDES permit, and DEQ has determined that updates to the BMP cannot be made when the existing permit is administratively extended and outside the NPDES renewal process. The Solids Treatment Capacity Improvements project design is expected to conclude in early 2023 with construction running from 2023 through 2025. Since the new solids treatment process is similar to the existing, DEQ has granted permission for the City to operate the new system on a trial basis. However, since the NPDES permit renewal is expected in 2024, updates to the BMP should be developed concurrent with the NPDES renewal process. Finalization of the BMP is dependent on timing of construction completion and on progress of NPDES renewal.

This task provides an allowance for updating the existing BMP to reflect changes from the new solids treatment process and associated discussions with DEQ.

Assumptions:

- *The revised BMP will build upon and incorporate previous work to the extent practical from the existing BMP.*
- *One version of a Draft BMP will be provided to the City by DEQ for review and comment.*
- *Finalization of the BMP will be dependent on timing of construction completion and permit renewal.*
- *Two, 1-hour virtual meetings with City staff attended by three Consultant staff.*

***Deliverables**:*

- *Written responses to comments on the Draft BMP.*
- *Draft and final BMP.*

Task 8: Conveyance System Improvement Alternatives Analysis

Based on capacity and condition analyses in Task 6, identify alternatives to mitigate unacceptable levels of risk for system assets, including correcting capacity and condition deficiencies through replacement, rehabilitation and/or I&I reduction. Identify planning level sewer extension alignments and sizing, and regional pump stations for future growth areas within the urban growth boundary. Perform cost and non-cost evaluation of improvement alternatives. Assist the City in selecting preferred improvements. Identify timing and phasing of preferred improvements.

Task 8.1: Develop Unit Costs and Cost Methodology for Alternatives Analysis

Consultant will develop unit cost curves for pipelines, access structures, diversion structures, pump stations, and force mains from regional cost databases and local bid tabs. Unit costs will be based on labor and materials costs in 2022 factoring excavation depth, sizing, and surface restoration requirements. A factor will be applied to infrastructure constructed in areas with potential for environmental mitigation. Linear assets will include additional costs for trenchless construction associated with river/creek crossings, railway crossings, or highway crossings. Unit costs will be developed for linear assets associated with pipeline rehabilitation based on CIPP lining and pipe bursting trenchless techniques. All unit costs will include markups for engineering, legal, admin, contractor general conditions, contractor overhead and profit, permitting, and construction contingency. Unit costs will exclude land acquisition.

Unit costs will be consistent with Class 5 budget estimates as established by the American Association of Cost Engineers (AACE). This preliminary estimate class is used for conceptual screening and assumes project definition maturity level below two percent. The expected accuracy range is -20 to -50 percent on the low end, and + 30 to +100 percent on the high end. Cost estimates are intended to be used as guidance in establishing funding requirements at the project planning level based on information available at the time of estimate.

Improvement alternatives analysis and the development of the City's Conveyance System Capital Improvement Program will rely on the Class 5-unit costs. The improvement alternatives analysis will compare both capital and life cycle costs for each alternative. Life cycle cost analysis will utilize the Equivalent Uniform Annual Cost Methodology (EUAC) to calculate the annualized present value of constructing, operating, and maintaining components of the system.

Deliverables:

- *A draft and final technical memorandum documenting the cost methodology and unit costs.*

Task 8.2: Rainfall Derived Infiltration and Inflow Cost Effectiveness Analysis

Prior to developing improvement alternatives, Consultant will utilize the City's hydraulic model to evaluate the cost of existing infrastructure upsizing compared to reduction of wet weather flows through I&I rehabilitation in each metered basin. Consultant will develop I&I reduction cost curves (downstream capacity improvement costs plus I&I reduction costs for a range of I&I reduction thresholds) for 2025, 2035, 2045, and buildout timeframes. Consultant will review the I&I reduction cost curves with the City to select a target level of

I&I reduction and associated reduction timing to integrate into the improvement alternatives analysis. Any flow reduction for I&I rehabilitation impacting future flow projections will be integrated into the Flow and Load Projection final technical memorandum. High level treatment costs curves may also be integrated into the evaluation (if available).

Cost analysis for the I&I evaluation will discount rehabilitation and replacement costs using risk scoring and applicable remaining useful life information from the existing system risk analysis. A minimal degradation factor will be applied to existing I&I rates per year based on industry standards.

Assumptions:

- *One virtual meeting and one in-person meeting, two hours each, to review I&I evaluation approach/assumptions and to select targeted I&I reduction basins and timing (combine meetings with Task 6.3), attended by two Consultant staff.*

Deliverables:

- *A draft and final technical memorandum documenting the I&I evaluation.*

Task 8.3: Conveyance System Improvement Alternatives Evaluation

Consultant will evaluate improvement alternatives to resolve capacity and condition deficiencies. The evaluation will focus on the 20-year planning horizon (2045) but will consider sizing for buildout conditions and phasing of projects in 5-year increments to 2045. The improvement evaluation includes:

- Prepare for and conduct a workshop with City staff to review conveyance system capacity mapping, condition mapping, and I&I reduction targets. Brainstorm conveyance system improvement alternatives. Alternatives may include pipeline upsizing, new pipeline routes, storage, pumping, pump station decommissioning or consolidation, and diversion control. The improvements will encompass existing infrastructure upgrades, and extension of trunk sewers or new regional pump stations to serve future growth areas.
- Review capital and life cycle cost comparison approach and identify non-cost factors for selecting improvement alternatives with City staff. Non-cost criteria may include construction risk, public impact, environmental impact, operations and maintenance, and implementation flexibility. Identify approach to selecting preferred improvement projects through discussion or scoring of cost and non-cost criteria.
- Evaluate preliminary alternatives for existing system capacity and condition deficiencies using the selected cost and non-cost criteria. Summarize improvement alternatives by cost and non-cost criteria for review with City staff.
- Evaluate local conveyance improvements for pipeline extensions 12-inch and larger and regional pump stations.
- Facilitate a second workshop to review improvement alternatives costs and non-cost factors. Assist City staff in selecting preferred conveyance improvements for the capital improvement program.

- Prepare draft capital improvement list with capital costs, project drivers and project timing. The capital project list will be refined in Task 11, Capital Improvement Program and used in Task 10, Rate and SDC Study. Review draft capital improvement list with City staff.

Assumptions:

- *Two in-person workshops and two virtual meetings, each 2-3 hours, to prepare for improvement alternative workshops, attended by three Consultant staff. One virtual meeting to review draft capital improvement list.*
- *Improvement alternatives will be combined into a maximum of three system-wide improvement scenarios representing the potential combinations of improvement projects.*
- *Local growth area analysis assumes a maximum of two concepts per growth area in up to five growth areas.*

Deliverables:

- *A draft and final technical memorandum documenting the improvement alternatives evaluation and decision process to select preferred improvement projects.*

Task 9: WRF Analysis

The purpose of this task is to apply the flow and load results from the conveyance system tasks to the wastewater treatment processes to determine recommended updates to the 2009 Wastewater Facilities Plan. The result will be a complete, updated Facilities Plan.

Task 9.1: Review Existing WRF Facilities Plan and Provide Draft FP Outline and Format

Consultant will review the existing 2009 Water Reclamation Facilities Plan, identifying those areas that need to be updated and preparing a draft outline and Table of Contents for the proposed update. The outline will document the format of the updated Facilities Plan, including anticipated Chapters, TM's, Tables and Figures to the extent possible. This updated outline will form the basis for the updated Facilities Plan. A meeting will be held with the City to review the proposed outline. The outline will then be shared with DEQ.

Assumptions:

- *One one-hour virtual meeting to review outline, attended by three Consultant staff.*
- *Evaluation of the required Facilities Plan chapters will be based on following, and reusing where possible, the format and content from the 2009 Facilities Plan.*
- *Past evaluations completed for the Secondary Expansion, Tertiary Treatment and Disinfection, and Solids Treatment Capacity Improvements projects will form the basis for evaluations under the task.*
- *The City will provide one set of consolidated comments on the outline. These comments will be incorporated into the subsequent deliverables as appropriate.*

Deliverables:

- *Outline of proposed Facilities Plan Table of Contents.*

Task 9.2: Existing Wastewater Facilities (Update Chapter 3 of 2009 Facilities Plan)

This Task involves reviewing and updating the assessment of existing conditions. This section shall utilize the historical flows and loads from Task 5, to assess the unit process capacity of the existing WRF and an overall capacity rating of the WRF identifying limiting unit processes. Also, any operational issues are to be identified and summarized through WRF staff interviews. Results of the Condition Assessment from Task 3 will be incorporated.

Assumptions:

- *One one-hour virtual meeting to review outline, attended by three Consultant staff.*
- *The majority of the background information required for this task will be completed in previous tasks; minor modifications and refinements to the flow and load projections and plant capacity assessment will be conducted if necessary to respond to additional findings.*
- *The City will provide one set of consolidated comments on the TM. These comments will be incorporated into the draft facility plan document under Task 13 as appropriate.*

Deliverables:

- *Technical Memorandum documenting the existing conditions and capacity assessment, which will be incorporated into the Facilities Plan.*

Task 9.3: Wastewater Flows and Loads and Basis of Planning (Update Chapter 4 and 6 of 2009 Facilities Plan)

This task involves reviewing and updating the wastewater flow and load projections through 2045. Flow and load criteria established as part of Task 5.3 will be the basis for the updates. The focus of the task will be on:

- Coordinating the Task 5.3 flows and loads developed for the conveyance system with the projected flows and loads for the treatment system.
- Coordinating whether conveyance alternatives identified in Task 8 result in changes to the flows and loads to the treatment systems.

Assumptions:

- *The majority of the background information required for this task will be completed in previous tasks.*
- *One in-person workshop and one virtual meeting, two hours each, to coordinate and finalize final flows and loads for the basis of treatment system planning, attended three Consultant staff.*
- *The City will provide one set of consolidated comments on the TM. These comments will be incorporated into the draft facility plan document under Task 13 as appropriate.*

Deliverables:

- *Technical Memorandum documenting the flows and loads, which will be incorporated into the Facilities Plan.*

Task 9.4: Regulatory Requirements (Update Chapter 5 of 2009 Facilities Plan)

The basis for updates for Chapter 5 of the Facilities Plan will be developed in Task 7, Regulatory Support. No additional budget is included here.

Task 9.5: Liquid Stream Alternatives (Update Chapter 7 of 2009 Facility Plan)

This task involves reviewing and updating liquids treatment process alternatives. After completion of previous tasks to establish flows and loads, the liquid treatment processes will be evaluated. The basis of the evaluation will be an update to the 2013 Project Definition Report for the Secondary Expansion and the 2017 Project Definition Report for Tertiary Treatment and Disinfection, which were a comprehensive review and alternative analysis for the secondary, tertiary, and disinfection processes.

Treatment alternatives will be evaluated in workshops. Evaluation criteria and a preliminary, qualitative screening will be conducted in the first workshop to determine any additional alternatives are needed beyond those evaluated in the previous reports. The alternative evaluation will then be updated on a life cycle basis to determine the most cost-

effective processes to effectively meet the objectives of the plan. A second workshop will focus on finalizing the project list.

Assumptions:

- *The Consultant will begin with a review of 2013 Project Definition Report for the Secondary Expansion and the 2017 Project Definition Report for Tertiary Treatment and Disinfection. The Consultant will avoid rework and only suggest additional areas of study and/or evaluation if it appears beneficial to the City based on new industry technology developments, changes in projected flows/load, and/or new WRF performance information.*
- *One in-person workshop and one virtual meeting, two hours each, to coordinate and finalize alternatives, attended by three Consultant staff.*
- *Up to two system alternatives will be evaluated.*
- *The City will provide one set of consolidated comments on the TM.*

Deliverables:

- *Technical Memorandum, documenting the liquid treatment recommendations, which will form the basis of the Facilities Plan chapter.*

Task 9.6: Solids Management Alternatives (Update Chapter 8 of 2009 Facility Plan)

This task involves reviewing and updating solids treatment process alternatives. After completion of previous tasks to establish flows and loads, the solids treatment processes will be evaluated. The basis of the evaluation will be an update to the 2021 Project Definition Report for the Biosolids Storage Tank and Grit System Expansion Project, which was a comprehensive review and alternative analysis for the solids treatment process.

Treatment alternatives will be confirmed during a workshop. A preliminary, qualitative screening will be conducted at that workshop to determine any additional alternatives are needed beyond those evaluated in the 2021 report. This task will include evaluation of the applicability of the Biochar process for the WRF. The alternative evaluation will then be updated on a life cycle basis to determine the most cost-effective processes to effectively meet the objectives of the plan.

Assumptions:

- *The Consultant will begin with a review of 2021 Project Definition Report for the Biosolids Storage Tank and Grit System Expansion Project. The Consultant will avoid rework and only suggest additional areas of study and/or evaluation if it appears beneficial to the City based on new industry technology developments, changes in projected flows/load, and/or new WRF performance information.*
- *One in-person workshops and one virtual meeting to coordinate and finalize alternatives.*
- *Up to two system alternatives will be evaluated.*
- *The City will provide one set of consolidated comments on the TM.*

Deliverables:

- *Technical Memorandum, documenting the solids treatment recommendations, which will form the basis of the Facilities Plan chapter.*

Task 9.7: Water Reclamation (Update Chapter 9 of 2009 Facility Plan)

This task involves updating the Water Reclamation chapter from the 2009 Facilities Plan. The 2024 NPDES renewal could impact the results of the evaluation, so the extent of updates are dependent on results of Task 7, Regulatory Support. Current status of City use of potable water for evaluation will be considered.

Assumptions:

- *The majority of the work performed under this task will be based on work from the 2009 Facilities Plan with updates based on results of Task 7, Regulatory Support.*
- *One in-person workshop and one virtual meeting, two hours each, to coordinate and finalize alternatives, attended by three Consultant staff.*
- *The City will provide one set of consolidated comments on the TM.*

Deliverables:

- *Technical Memorandum, documenting the water reclamation recommendations, which will form the basis of the Facilities Plan chapter.*

Task 9.8: Recommended Plan (Update Chapter 10 of 2009 Facility Plan)

This task involves evaluating and updating, as needed, the Recommended Plan from the 2009 Facilities Plan. This task involves summarizing the recommendations of all the previous tasks and recommending capital improvements to be included in Task 11, Capital Improvement Program. The recommended plan is to include future process flow schematics, process solids schematics, facility footprint (showing any property acquisition requirements) and major piping locations. In addition, the hydraulic feasibility of new structures will be assessed based on a review of existing hydraulic profiles that have been developed from past work.

In 2013, the state published the "Oregon Resilience Plan" which had a section and made recommendations for water and wastewater utilities in the state. The approach was for the water and wastewater utilities to develop a plan for designing important structures to withstand a Cascadia fault earthquake without having catastrophic failures so that the facility can be back online more quickly after such an event. A project will be included in the recommended CIP of the MP update to conduct a structural review of the WRF assets to address this resiliency planning. It is anticipated that the scope of this recommended project CIP will include identifying which structures are critical for continued operation after such an event, identifying which structures out of that group will need upgrades, and defining resiliency design criteria for new structures.

Assumptions:

- *The majority of the work performed under this task will be summarizing results of previous tasks. Minor modifications and refinements to the recommended plan will be made, if necessary, as the CIP is developed in Task 11.*

- *One in-person workshops and one virtual meeting, two hours each, to coordinate and finalize recommendations, attended by three Consultant staff.*
- *The City will provide one set of consolidated comments on the TM.*

Deliverables:

- *Technical Memorandum, documenting the integrated alternatives analysis for liquids and solids treatment options, which will form the basis of the Facilities Plan chapter.*

Task 10: Capital Improvement Program

The purpose of this task is to prioritize and package capital improvement projects based on capacity (growth timing) and condition-based risk drivers. Identify implementation strategies to coordinate capital improvement program. Identify flow triggers and flow monitoring program to assist the City with flexible project implementation based on development timing. Summarize City policies for coordinating development timing and funding when capacity limits require system improvements.

Task 10.1: Conveyance System Project Prioritization and Phasing

Based on outcomes of Tasks 8 and 10, finalize conveyance system capital improvement program priorities with input from City staff.

- *Prioritize I&I Rehabilitation Projects.* Develop basin priorities based upon I&I rates, value in offsetting downstream capacity improvements, and peak flow reduction.
- *Prioritize Replacement Program.* Identify annual funding and document City repair and replacement program based on pipe condition. Identify where work in the replacement program may overlap with the I&I reduction basins.
- *Develop Flow Trigger and Capacity Plots.* Develop and document "trigger points" and drivers for each major conveyance system improvement. Identify locations for longer-term flow monitoring to assist the City in flexible implementation timing of projects.
- *Develop Project Specific Factsheets.* Develop fact sheets for each capital improvement project including project map, timing or phasing information, flow capacity trigger plots, capital cost estimate, and project drivers. Meet with City staff to present draft format of fact sheets and receive feedback prior to production of full set of factsheets.
- *Conveyance System Implementation Plan.* Prepare a Conveyance Implementation Plan for the recommended conveyance projects which describes sequencing of projects and opportunities for efficient implementation. Summarize capital dollar expenditures by year for the capital improvement program.
- *City Policy.* Review City policy for implementing capital projects based on development triggers. Identify preferred implementation and funding strategies when development relies on future conveyance system capital projects. Summarize City's preferred policy within the master plan.

Task 10.2: WRF Project Prioritization and Phasing

Based on outcomes of Tasks 9 and 10, finalize WRF capital improvement program priorities with input from City staff. Building on the results of the condition assessment and alternatives evaluation, a CIP list will be developed. The CIP list will identify capital projects over the 20-year planning period and prioritize those projects based on need.

- *Develop Flow Trigger and Capacity Plots.* Develop and document "trigger points" and drivers for each major treatment system improvement.

- *Develop Project Specific Factsheets.* Develop fact sheets for each capital improvement project including project timing or phasing information, flow capacity trigger plots, capital cost estimate, and project drivers. Meet with City staff to present draft format of fact sheets and receive feedback prior to production of full set of factsheets.
- *WRF Implementation Plan.* Prepare a WRF Implementation Plan for the recommended projects which describes sequencing of projects and opportunities for efficient implementation. Summarize capital dollar expenditures by year for the capital improvement program.
- *City Policy.* Review City policy for implementing capital projects. Summarize City's preferred policy within the master plan.

Assumptions (for Tasks 10.1 and 10.2):

- *One virtual and one in-person meeting, two hours each, to finalize Conveyance System Capital Improvement Program.*
- *One virtual and one in-person meeting, two hours each, to finalize WRF Capital Improvement Program.*
- *The CIP list will include AACE Level 5 cost opinions.*
- *The CIP list will include recommendations for additional condition assessments to be performed in the future.*

Deliverables (for Tasks 10.1 and 10.2):

- *CIP list for implementation of recommended improvements to include timing, estimated duration, and anticipated costs for each project to be included in the Recommended Plan section of the Planning documents.*

Task 11: Rate and System Development Charge Study

The purpose of this task is to develop financial plan with supporting rates and a revised system development charge (SDC), based on the conveyance and treatment system capital improvement programs. Galardi Rothstein Group (Subconsultant) will lead this task.

Task 11.1: Wastewater Rate and SDC Study Kickoff

Subconsultant will conduct a virtual kick off meeting with Consultant and City Staff to discuss the data requirements, scope, and methodology of the Wastewater Rate and SDC Study. Consultant will provide Subconsultant with applicable planning data, capital improvement project lists including costs and project timing, existing capacity, existing flows, and future flow projections. City staff will provide Subconsultant historical financial records relevant to the Wastewater Rate and SDC Study.

Task 11.2: Financial Analysis

Subconsultant will perform the following:

- Review historical revenues and expenditures for the system for the past 3 years to identify significant cost and revenue factors and trends.
- Identify annual system requirements (capital and operating) for the 20-year planning horizon.
- Review capital improvement funding strategies and sources including existing rates.
- Project revenues including revenues from SDCs, interest income, and other charges.
- Deduct revenues from total costs to determine the amount of annual revenue required from user rates.
- Utilize a computerized financial planning model so that alternative capital phasing and policy and forecast assumptions may be evaluated against the need for any additional local rate increases.
- Develop a recommended plan to balance the City's financial policies and objectives and capital improvement priorities.

Task 10.3: Rate Equity Review

Update Customer Characteristics

We will analyze wastewater billing reports and plant information and update the previous (2015) study "plant balance" analysis. In this analysis, customer class flows and loads are estimated and reconciled back to total flows and loads at the plant. This analysis is key to both confirming customer billing determinants and establishing cost responsibility between strength-based customer classes.

Update Cost Allocations

We will review the cost allocation methodologies and factors used in the 2015 Rate Equity Review Study, and update allocation parameters and factors as needed to reflect planned plant operation and design. One of the factors to be considered will be the allocation basis

for infiltration and inflow costs. Once the cost allocation methodologies and factors have been determined, we will allocate rate test year revenue requirements to functional categories and customer classes.

Update Rate Structure

Based on the cost-of-service analysis, rates will be calculated for each customer class. We will compare revenue by class under the new rates with existing revenue collections. We will also prepare sample monthly bills for each class to illustrate the impacts of the revised rates.

Task 11.4: System Development Charge Analysis

Within the framework of Oregon law, local governments have latitude in selecting specific methodological approaches related to the calculation and assessment of SDCs. The first set of options relates to the overall structure of the SDC – whether the fees are based on existing facility costs (reimbursement fee), future planned improvements (improvement fee), or a combination. Once a determination has been made as to the fee structure, the methodology may be further refined based on the following considerations:

- Existing system valuation approach (e.g., book value, original cost, and replacement cost)
- Fee assessment units (e.g., equivalent dwelling units, plumbing fixture units and meter size).

Subconsultant will perform the following:

- We will work with the City to evaluate alternative approaches and develop a methodology and fees consistent with the existing system available capacity costs, and future capital improvement needs.
- Review the capital project lists and use capacity and future flow data to determine the portion of each project that is needed for growth versus existing development. The sum of the growth-eligible portion of each project represents the SDC cost basis.
- Using system planning data, Subconsultant will estimate the future growth in equivalent dwelling units (EDU). The SDC cost basis is divided by the total growth units that will be served by the new improvements to determine the SDC. The SDC per EDU is the cost basis divided by the growth units. The resulting SDC per EDU will be compared against the existing City SDC per EDU to determine if a higher SDC fee is required.
- Estimate Oregon SDC statute compliance costs, which are also recoverable through the SDCs.

Assumptions:

- *Two virtual meetings, one hour each, to review SDC analysis, attended by Subconsultant and two Consultant staff.*
- *Attendance at two Council meetings, 2 hours each, attended by Subconsultant and two Consultant staff.*

Deliverables:

- *A draft and final technical memorandum documenting the Wastewater Rate and SDC Study.*

Task 12: Conveyance System Master Plan Documentation, Deliverables, and Support Plan Adoption

The purpose of this task is to prepare a comprehensive Conveyance System Master Plan Report including an Executive Summary and Electronic Deliverables. Present master plan and capital improvement program to City Council and support plan adoption.

Task 12.1: Draft Master Plan

Consultant will prepare a draft report and executive summary for City review. The report will incorporate the previously developed technical memorandums as sections of the document. The Master Plan Report will include an Executive Summary with graphics, summarizing key findings and recommendations. Supporting technical material will be provided in appendix documents designed to be transparent and logical for staff-level review. The draft document will be provided to City staff for review in electronic format including Word and PDF versions.

Assumptions:

- *City will provide review comments in a single compiled document.*
- *One two-hour virtual review meeting to discuss City comments, attended by two Consultant staff.*

Task 12.2: Final Master Plan

Based on comments received from the City, Consultant will prepare the final Master Plan Report and Executive Summary. Ten hardcopies will be prepared for the City and a compiled Electronic PDF document with bookmarks.

Deliverables:

- *Electronic compiled PDF of Master Plan*

Task 12.3: Electronic Deliverables

Consultant will provide additional electronic deliverables including:

- Conveyance System Model in selected software platform with description of model scenarios.
- GIS package of conveyance system capital improvement projects and capacity mapping with description of attribute fields.

Consultant will develop training materials and provide one day of in-person training on how to utilize the hydraulic model.

Assumptions:

- *City is responsible for any software purchase and licensing costs associated with hydraulic modeling software for applicable training and use of the model outside of Consultant services associated with this project.*

Task 12.4: Participate in Public and City Council Meetings

Assist City staff in presenting the Conveyance System Master Plan in up to two public meetings. Meeting presentations will address the purpose of the master plan, provide background on planning assumptions and improvement analysis, and summarize the capital improvement program. One of the meetings is assumed to include a presentation to the City Council for formal plan adoption.

Assumptions:

- *Two in-person meetings and two virtual meetings, each two hours, to assist with preparing presentation materials with City staff, attended by two Consultant staff.*

Deliverables:

- *Powerpoint presentations for each meeting.*

Task 12.5: Public Involvement

Consultant will prepare for and facilitate up to five public meetings during the master plan. This task includes time to develop presentation materials, review materials with City staff, and facilitate meetings in-person. The intent of the meetings is to inform the public of the planning process and solicit community feedback. The meetings may consist of an open public forum and/or a dedicated technical advisory committee meeting format. An allowance of $120,000 has been provided for this task.

Assumptions:

- Five in-person public meetings and two to three consultant staff attendance per meeting
- Five virtual preparation or follow up meetings
- City staff will advertise public meetings
- Consultant may subcontract facilitation services

Deliverables:

- Powerpoint presentations for each meeting

Task 13: Water Reclamation Facilities Plan Documentation, Deliverables, and Support Plan Adoption

The purpose of this task is to prepare a comprehensive Water Reclamation Facilities Plan including an Executive Summary and Electronic Deliverables. Present facilities plan and capital improvement program to City Council and support plan adoption.

Task 13.1: Draft Facilities Plan

Consultant will prepare a draft report and executive summary for City review. The report will incorporate the previously developed technical memorandums as sections of the document. The Facilities Plan will include an Executive Summary with graphics, summarizing key findings and recommendations. Supporting technical material will be provided in appendix documents designed to be transparent and logical for staff-level review. The draft document will be provided to City staff for review in electronic format including Word and PDF versions.

Assumptions:

- *City will provide review comments in a single compiled document.*
- *One two-hour virtual review meeting to discuss City comments, attended by two Consultant staff.*

Task 13.2: Final Facility Plan

Based on comments received from the City, Consultant will prepare the final Facilities Plan and Executive Summary. Ten hardcopies will be prepared for the City and a compiled Electronic PDF document with bookmarks.

Deliverables:

- *Electronic compiled PDF of Facility Plan*

Task 13.3: Participate in Public and City Council Meetings

Assist City staff in presenting the WRF Facilities Plan in up to two public meetings. Meeting presentations will address the purpose of the master plan, provide background on planning assumptions and improvement analysis, and summarize the capital improvement program. One of the meetings is assumed to include a presentation to the City Council for formal plan adoption.

Assumptions:

- *Two in-person meetings and two virtual meetings, each two hours, to assist with preparing presentation materials with City staff, attended by two Consultant staff.*

Deliverables:

- *Powerpoint presentations for each meeting.*

Task 14: Additional Services Allowance

The City may elect to request additional services from Consultant during the course of the project. The scope, schedule and fee for each additional service will be negotiated and approved by the City prior to Consultant beginning the associated work. The allowance provided may not fully fund all additional services that may be identified.

Facility and Master Plan, City of McMinnville
Level of Effort - Draft 09/01/2022
Task/Subtask Total

			Project Manager	Conveyance Lead	Conveyance Engineer/ Modeling & Alternatives	Conveyance Engineer/ Modeling & Alternatives	Conveyance Engineer/ Modeling & Alternatives	Conveyance Engineer/ Condition Specialist	Planning, Flows and Loads	Regulatory Lead	Regulatory Support	Solids Technologist	Liquids Technologist	Facility Planning SME	Structural	Cost Estimator Specialist	Condition Assessment Specialist
			Josh Koch	Shad Roundy	Sven MacAller	Thomas Walsh	YunJi Choi	Dan Buonadonna	Todd Greeley	Dave Wilson	Erin Thatcher	Dave Oerke	Bill Leaf	Matt Noesen	Alex Firth	Tom Jones	Kurt Lind
		Task 1 - Project Management										Hours					
1	1.1	Project Instructions and Management Plan	12	4	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1.2	Project Chartering and Kick-off Meeting	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1.3	Progress Meetings and Updates	56	28	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1.4	Invoicing, Cost, Schedule	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1.5	QA/QC Management	16	4	0	0	0	0	0	0	0	0	0	0	0	0	0
		Task 2 - Data Request, Collection, and Review															
2	2.1	2.1 Request and Review Existing Data	2	6	0	24	8	0	0	0	0	0	0	0	0	0	0
2	2.2	2.2 Flow Monitoring Program	6	8	0	8	0	0	0	0	0	0	0	0	0	0	0
		Task 3 - Condition Assessment															
3	3.1	Condition Assessment	12	12	0	36	20	0	16	0	0	0	0	0	40	0	108
		Task 4 - Conveyance System Hydraulic Model Update															
4	4.1	4.1 Model Evaluation and Selection	2	4	0	8	0	0	0	0	0	0	0	0	0	0	0
4	4.2	4.2 Update Collection System Model Network	0	8	0	32	64	0	0	0	0	0	0	0	0	0	0
4	4.3	4.3 Update Model Flow Loading	0	22	0	56	160	0	0	0	0	0	0	0	0	0	0
4	4.4	4.4 Model Calibration for Dry and Wet Weather Conditions	4	20	0	128	16	0	0	0	0	0	0	0	0	0	0
		Task 5 - Conveyance Basis of Planning															
5	5.1	5.1 Study Area Characteristics	2	16	68	0	0	0	0	0	0	0	0	0	0	0	0
5	5.2	5.2 Design Criteria	4	24	88	0	24	0	0	0	0	0	0	0	0	0	0
5	5.3	5.3 Flow and Load Updates	0	32	64	0	0	0	104	0	0	0	0	4	0	0	0
		Task 6 - Conveyance System Existing System Capacity and Condition Analysis															
6	6.1	6.1 Existing System Description	2	14	0	44	36	0	0	0	0	0	0	0	0	0	0
6	6.2	6.2 Characterize System Capacity and I&I	0	14	0	72	36	0	0	0	0	0	0	0	0	0	0
6	6.3	6.3 Existing System Capacity and Condition Risk Analysis	4	16	0	0	68	24	0	0	0	0	0	0	0	0	0
		Task 7 - Regulatory Support															
7	7.1	7.1 Regulatory Review	12	0	0	0	0	0	0	56	36	0	0	0	0	0	0
7	7.2	7.2 Support for Permit Renewal	22	0	0	0	0	0	0	70	54	0	0	0	0	0	0
7	7.3	7.3 Ambient Toxics Monitoring (Optional Task)	2	0	0	0	0	0	0	8	16	0	0	0	0	0	0
7	7.4	7.4 Develop BMP	8	0	0	0	0	0	22	0	0	8	0	0	0	0	0
		Task 8 - Collection System Improvement Alternatives Analysis															
8	8.1	8.1 Unit Cost Methodology	2	12	0	0	8	0	0	0	0	0	0	0	0	32	0
8	8.2	8.2 Rainfall Derived Infiltration and Inflow Cost Effectiveness Analysis	4	36	96	0	0	0	0	0	0	0	0	0	0	0	0
8	8.3	8.3 Conveyance System Improvement Alternatives Evaluation	10	88	144	80	0	0	0	0	0	0	0	0	0	0	0
		Task 9 - WRF Analysis															
9	9.1	9.1 Review existing Facilities Plan	10	2	0	0	0	0	6	0	0	6	6	6	0	0	0
9	9.2	9.2 Existing Wastewater Facilities	16	0	0	0	0	0	76	0	0	4	10	2	0	0	4
9	9.3	9.3 WW Flows and Loads Basis of Planning	22	6	0	0	0	0	38	0	0	0	4	6	0	4	0
9	9.4	9.4 Regulatory	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	9.5	9.5 Liquid Stream Alternatives	78	0	0	0	0	0	178	0	0	0	28	54	0	14	0
9	9.6	9.6 Solids Stream Alternatives	48	0	0	0	0	0	148	0	0	72	0	32	0	14	0
9	9.7	9.7 Water Reclamation	28	0	0	0	0	0	50	16	0	0	0	38	0	0	0
9	9.8	9.8 Recommended Plan	24	0	0	0	0	0	44	0	0	14	0	14	0	8	0
		Task 10 - Capital Improvement Program															
10	10.1	10.1 Conveyance Project Prioritization and Phasing	4	40	72	24	48	0	0	0	0	0	0	0	0	0	0
10	10.2	10.2 WRF Project Prioritization and Phasing	28	0	0	0	0	0	76	0	0	4	4	20	0	0	0
		Task 11 - Rate and System Development Charge Study															
11	11.1	11.1 Wastewater Rate and SDC Study Kick-off	6	6	0	8	0	0	0	0	0	0	0	0	0	0	0
11	11.2	11.2 Financial Analysis	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
11	11.3	11.3 Rate Equity Review	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
11	11.4	11.4 System Development Charge Analysis	14	14	0	8	0	0	0	0	0	0	0	0	0	0	0
		Task 12 - Conveyance System Master Plan Documentation, Deliverables, and Support Plan Adoption															
12	12.1	12.1 Draft Master Plan	2	20	0	0	0	0	0	0	0	0	0	0	0	0	0
12	12.2	12.2 Final Master Plan	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0
12	12.3	12.3 Electronic Deliverables	0	16	36	24	0	0	0	0	0	0	0	0	0	0	0
12	12.4	12.4 Participate in Public and City Council Meetings	8	24	0	16	0	0	0	0	0	0	0	0	0	0	0
12	12.5	12.5 Public Involvement (Allowance)	110	110	0	0	0	0	0	0	0	0	0	24	0	0	0
		Task 13 - WRF Documentation, Deliverables, and Support Plan Adoption															
13	13.1	13.1 Draft Master Plan	20	0	0	0	0	0	0	0	0	0	0	8	0	0	0
13	13.2	13.2 Final Master Plan	18	0	0	0	0	0	40	8	0	0	0	0	0	0	0
13	13.3	13.3 Participate in Public and City Council Meetings	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Task 14 - Additional Services Allowance															
14	14.1	14.1 Allowance	420	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total Hours or Cost	**1,102**	**636**	**568**	**568**	**488**	**24**	**798**	**158**	**106**	**108**	**52**	**208**	**40**	**72**	**112**

Facility and Master Plan, City of McMinnville
Level of Effort - Draft 09/01/2022
Task/Subtask Total

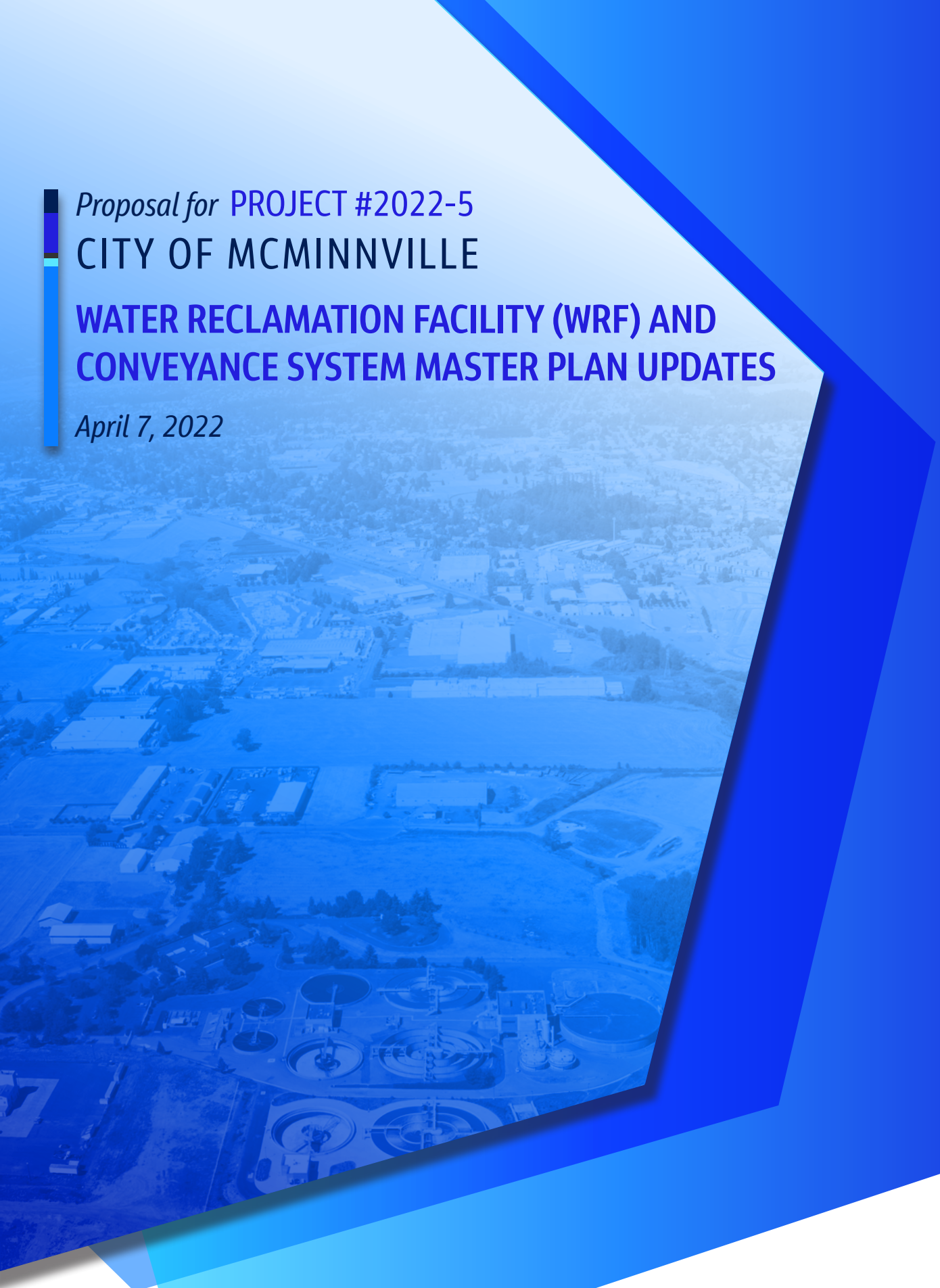
			QA/QC	Technical Editor	Project Controls	Admin				Expense Detail							Schedule Percent by Year		
			Mark Johnson	John Hall	Garrett Bates	Marie Rose	2022 Total Labor Hours	2023 Total Labor Hours	2024 Total Labor Hours	Total Labor $	Subcontractor	# Short Trips	# Long Trips			Total Expenses $	Total Fee (Labor + Subcontractor + Expense) $			
		Task 1 - Project Management																		
1	1.1	Project Instructions and Management Plan	0	0	0	0	16	0	0	$3,764	0	0	0	$	-	$ -	$3,764	100%	0%	0%
1	1.2	Project Chartering and Kick-off Meeting	0	0	0	0	8	0	0	$1,921	0	2	0	$	-	$ 125	$2,046	100%	0%	0%
1	1.3	Progress Meetings and Updates	0	0	0	0	16.8	33.6	33.6	$20,525	0	14	0	$	-	$ 875	$21,400	20%	40%	40%
1	1.4	Invoicing, Cost, Schedule	0	0	56	16	20	40	40	$16,037	0	0	0	$	-	$ -	$16,037	20%	40%	40%
1	1.5	QA/QC Management	0	0	0	0	4	8	8	$4,864	0	0	0	$	-	$ -	$4,864	20%	40%	40%
		Task 2 - Data Request, Colllection, and Review																		
2	2.1	2.1 Request and Review Existing Data	0	0	0	0	40	0	0	$6,896	0	0	0	$	-	$ -	$6,896	100%	0%	0%
2	2.2	2.2 Flow Monitoring Program	0	0	0	8	24.5	5.5	0	$5,307	$158,100	0	0	$	-	$ -	$163,407	88%	13%	0%
		Task 3 - Condition Assessment																		
3	3.1	Condition Assessment	0	8	0	0	159.5	92.5	0	$56,292	0	4	2	$	-	$ 2,250	$58,542	70%	30%	0%
		Task 4 - Conveyance System Hydraulic Model Update																		
4	4.1	4.1 Model Evaluation and Selection	0	0	0	0	14	0	0	$2,726	0	0	0	$	-	$ -	$2,726	100%	0%	0%
4	4.2	4.2 Update Collection System Model Network	0	0	0	0	104	0	0	$16,182	0	0	0	$	-	$ -	$16,182	100%	0%	0%
4	4.3	4.3 Update Model Flow Loading	0	0	0	0	113	125	0	$37,815	0	0	0	$	-	$ -	$37,815	50%	50%	0%
4	4.4	4.4 Model Calibration for Dry and Wet Weather Conditions	0	2	0	0	0	170	0	$29,780	0	0	0	$	-	$ -	$29,780	0%	100%	0%
		Task 5 - Conveyance Basis of Planning																		
5	5.1	5.1 Study Area Characteristics	2	2	0	0	90	0	0	$16,287	0	0	0	$	-	$ -	$16,287	100%	0%	0%
5	5.2	5.2 Design Criteria	2	2	0	0	0	144	0	$26,111	0	1	0	$	-	$ 63	$26,174	0%	100%	0%
5	5.3	5.3 Flow and Load Updates	2	2	0	0	68	140	0	$40,722	0	0	0	$	-	$ -	$40,722	43%	57%	0%
		Task 6 - Conveyance System Existing System Capacity and Condition Analysis																		
6	6.1	6.1 Existing System Description	0	2	0	0	0	98	0	$16,948	0	1	0	$	-	$ 63	$17,011	0%	100%	0%
6	6.2	6.2 Characterize System Capacity and I&I	2	2	0	0	0	126	0	$21,665	0	0	0	$	-	$ -	$21,665	0%	100%	0%
6	6.3	6.3 Existing System Capacity and Condition Risk Analysis	2	2	0	0	0	116	0	$23,103	0	1	0	$	-	$ 63	$23,166	0%	100%	0%
		Task 7 - Regulatory Support																		
7	7.1	7.1 Regulatory Review	0	2	0	0	42.4	42.4	21.2	$26,552	0	1	0	$	-	$ 63	$26,614	40%	40%	20%
7	7.2	7.2 Support for Permit Renewal	0	2	0	0	29.6	59.2	59.2	$37,231	0	0	0	$	-	$ -	$37,231	20%	40%	40%
7	7.3	7.3 Ambient Toxics Monitoring (Optional Task)	0	2	0	0	14	14	0	$6,408	0	2	0	$	-	$ 125	$6,533	50%	50%	0%
7	7.4	7.4 Develop BMP	0	2	0	0	0	20	20	$9,096	0	0	0	$	-	$ -	$9,096	0%	50%	50%
		Task 8 - Collection System Improvement Alternatives Analysis																		
8	8.1	8.1 Unit Cost Methodology	2	2	0	0	0	58	0	$14,061	0	0	0	$	-	$ -	$14,061	0%	100%	0%
8	8.2	8.2 Rainfall Derived Infiltration and Inflow Cost Effectiveness Analysis	2	2	0	0	0	140	0	$26,882	0	2	0	$	-	$ 125	$27,007	0%	100%	0%
8	8.3	8.3 Conveyance System Improvement Alternatives Evaluation	2	4	0	0	0	224	104	$63,356	0	3	0	$	-	$ 188	$63,544	0%	71%	29%
		Task 9 - WRF Analysis																		
9	9.1	9.1 Review existing Facilities Plan	0	0	0	0	0	36	0	$9,299	0	0	0	$	-	$ -	$9,299	0%	100%	0%
9	9.2	9.2 Existing Wastewater Facilities	0	2	0	0	0	114	0	$24,647	0	1	0	$	-	$ 63	$24,709	0%	100%	0%
9	9.3	9.3 WW Flows and Loads Basis of Planning	0	4	0	0	0	84	0	$18,925	0	2	0	$	-	$ 125	$19,050	0%	100%	0%
9	9.4	9.4 Regulatory	0	0	0	0	0	0	0	$0	0	0	0	$	-	$ -	$0	0%	100%	0%
9	9.5	9.5 Liquid Stream Alternatives	0	4	0	0	0	267	89	$82,368	0	2	1	$	-	$ 1,125	$83,493	0%	75%	25%
9	9.6	9.6 Solids Stream Alternatives	0	4	0	0	0	238.5	79.5	$75,968	0	2	1	$	-	$ 1,125	$77,093	0%	75%	25%
9	9.7	9.7 Water Reclamation	0	2	0	0	0	100.5	33.5	$32,806	0	2	1	$	-	$ 1,125	$33,931	0%	75%	25%
9	9.8	9.8 Recommended Plan	0	2	0	0	0	53	53	$25,427	0	2	1	$	-	$ 1,125	$26,552	0%	50%	50%
		Task 10 - Capital Improvement Program																		
10	10.1	10.1 Conveyance Project Prioritization and Phasing	2	2	0	0	0	0	192	$35,934	0	2	0	$	-	$ 125	$36,059	0%	0%	100%
10	10.2	10.2 WRF Project Prioritization and Phasing	2	2	0	0	0	0	136	$31,650	0	2	0	$	-	$ 125	$31,775	0%	0%	100%
		Task 11 - Rate and System Development Charge Study																		
11	11.1	11.1 Wastewater Rate and SDC Study Kick-off	0	0	0	4	0	0	24	$4,709	$ 10,000	0	0	$	-	$ -	$14,709	0%	0%	100%
11	11.2	11.2 Financial Analysis	0	0	0	0	0	0	8	$1,996	$ 5,000	0	0	$	-	$ -	$6,996	0%	0%	100%
11	11.3	11.3 Rate Equity Review	0	0	0	0	0	0	8	$1,996	$ 10,000	0	0	$	-	$ -	$11,996	0%	0%	100%
11	11.4	11.4 System Development Charge Analysis	2	2	0	0	0	0	40	$9,358	$ 10,000	0	0	$	-	$ -	$19,358	0%	0%	100%
		Task 12 - Conveyance System Master Plan Documentation, Deliverables, and Support Plan Adoption																		
12	12.1	12.1 Draft Master Plan	8	20	0	0	0	0	50	$11,981	0	0	0	$	-	$ -	$11,981	0%	0%	100%
12	12.2	12.2 Final Master Plan	0	28	0	0	0	0	46	$10,272	0	0	0	$	500	$ 500	$10,772	0%	0%	100%
12	12.3	12.3 Electronic Deliverables	0	0	0	0	0	0	76	$14,321	0	1	0	$	-	$ 63	$14,384	0%	0%	100%
12	12.4	12.4 Participate in Public and City Council Meetings	0	0	0	0	0	0	48	$10,730	0	2	0	$	-	$ 125	$10,855	0%	0%	100%
12	12.5	12.5 Public Involvement (Allowance)	0	0	0	30	0	0	274	$64,577	$ 50,000	10	2	$	2,798	$ 5,423	$120,000	0%	0%	100%
		Task 13 - WRF Documentation, Deliverables, and Support Plan Adoption																		
13	13.1	13.1 Draft Master Plan	0	20	0	0	0	0	48	$11,465	0	0	0	$	-	$ -	$11,465	0%	0%	100%
13	13.2	13.2 Final Master Plan	0	28	0	16	0	0	110	$22,108	0	0	0	$	500	$ 500	$22,608	0%	0%	100%
13	13.3	13.3 Participate in Public and City Council Meetings	0	0	0	0	0	0	24	$5,979	0	2	0	$	-	$ 125	$6,104	0%	0%	100%
		Task 14 - Additional Services Allowance																		
14	14.1	14.1 Allowance	0	0	0	0	84	168	168	$101,436	0	0	0	$	-	$ -	$101,436	20%	40%	40%
		Total Hours or Cost	**30**	**158**	**56**	**74**	**848**	**2,717**	**1,793**	**$1,138,483**	**$243,100**	**$3,813**	**$8,000**	**$**	**3,798**	**$ 15,611**	**$1,397,193**	**22%**	**40%**	**38%**

Proposal for PROJECT #2022-5

CITY OF MCMINNVILLE

WATER RECLAMATION FACILITY (WRF) AND CONVEYANCE SYSTEM MASTER PLAN UPDATES

April 7, 2022



Jacobs

Challenging today.
Reinventing tomorrow.

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April 7, 2022

Mr. Leland Koester, Wastewater Services Manager
City of McMinnville
3500 NE Clearwater Drive
McMinnville, OR 97128

Via email: bids@mcminnvilleoregon.gov

Subject: Proposal for Consulting Services Related to The Evaluation and Design of Water Reclamation Facility (WRF) and Conveyance System Master Plan Update

Dear Leland,

The City of McMinnville's wastewater collection system and treatment facilities consistently meet some of the most stringent discharge requirements in the state. This success is based on the City's attention to upgrades to the collection system and Water Reclamation Facility (WRF) with a focus on providing value to ratepayers. Since the 1990s, the Jacobs team has been integrally involved in many of these projects, providing an unparalleled knowledge of the City's wastewater system.

Recent changes to the urban growth boundary (UGB) will affect the reach of the collection system, impacting flows into the collection system and to the WRF. Understanding the impacts of the UGB changes are fundamental to developing a capital improvements program (CIP) and supporting rate structure and system development charges (SDCs). The Jacobs team includes experts in collection system modeling and liquids and solids treatment processes to inform the CIP, and we have the expertise to use this information to develop SDC recommendations. The resulting WRF and Conveyance System Master Plans will guide the City's decision-making and benefit its ratepayers for decades.

We are committed to continuing to be a part of the City of McMinnville's success story. **Mark Johnson** (mark.johnson6@jacobs.com), Principal in Charge, is authorized to sign any agreement that may result from this proposal. Please contact **Josh Koch** if you have questions or for additional information. You can reach Josh in Corvallis at 541.768.3689 or by email at joshua.koch@jacobs.com.

Sincerely,
Jacobs Engineering Group Inc.

Joshua Koch, PE
Project Manager

Mark Johnson, PE
Principal-In-Charge

RFP Requirements

Jacobs has previously signed agreements with the City of McMinnville and does not anticipate any issues in reaching a contractual agreement to deliver Consulting Services Related to the Water Reclamation Facility (WRF) and Conveyance System Master Plan Update Project. We have reviewed the Sample Professional Services Agreement provided with this RFP (Project #2022-5) and find it to be generally acceptable as the basis for the negotiation of a mutually agreed upon final contract between the parties.

- ***Federal/State Tax ID:*** *95-4081636* ***State of Incorporation:*** *Delaware*
- *Jacobs is aware of no addenda related to this proposal. Jacobs accepts all terms and conditions contained in the Request for Proposal and the Professional Services Agreement, except as otherwise specifically noted in our submitted Exceptions on March 24, 2022 to Mr. Leland Koester via email and enclosed herein as* ***APPENDIX B****.*
- *This submitted Proposal is valid for a period of ninety (90) days from the time and date of April 7, 2022, at 2:00 PM PST.*
- *All materials and documents acquired or produced by Jacobs in conjunction with the resulting contract shall be delivered to and become property of the City of McMinnville, without restriction or limitation of future use.*

PROPOSAL SUBMISSION

PROJECT UNDERSTANDING

Project Description

The history of the City of McMinnville's wastewater system and Jacobs relationship is built upon McMinnville's "success story" and "pay as you go" approach. Jacobs' project delivery history with McMinnville means we thoroughly understand the treatment facilities, collection system, and recent changes to the urban growth boundary (UGB). The major goal of the project is to incorporate the UGB change into the collection system model, determine resulting flows/loads, evaluate impacts on the collection system and treatment facilities, prioritize improvements, and develop a financial plan accordingly. Our knowledge of the existing collection system model and recent UGB changes will provide the foundation for our work. To determine impacts on treatment facilities, we will leverage recent past project reports that evaluated the secondary treatment, tertiary treatment, disinfection, and solids treatment processes. Our focus will be to update as much as possible and compile the results into two new documents: WRF Master Plan and Conveyance System Master Plan. Results will be coordinated with Deb Galardi to develop CIP and rates. We will work with the City's public relations consultant to provide supporting material for the public.

Primary Issues

The following issues provide the basis for the project:

Several other active projects necessitate close coordination; however, Jacobs is best suited to make the process seamless. Ongoing Solids Treatment Capacity Improvements design and construction, and Public Works and WRF Admin Planning schedules should be coordinated with the master planning effort.

Recent UGB changes will expand the reach of the collection system and influence the flows/loads entering the collection system and the WRF. Impacts on the collection system and WRF infrastructure need to be assessed.

Flow monitoring will be critical to the collection system model update, but timing is challenging since the best time to monitor is during the winter season which delays the start of modeling. Jacobs will discuss with the City how best to optimize timing of flow monitoring with project schedule.

Off-site pre-screening facility (located at the old wastewater treatment plant), requires further evaluation. While most of the facilities have been thoroughly studied recently, select facilities/processes require further evaluation.

Renewal of the NPDES permit (last issued in 2004) is currently on DEQ's schedule for 2024. The master planning effort should include discussions with DEQ so that master plan recommendations are consistent with any planned changes to the City's NPDES permit.

Milestones

Detailed information about expected project milestones and timing can be found in the **PROJECT SCHEDULE** section. Jacobs views the following as major milestones:

- Condition assessment of facilities
- Completion of flow monitoring
- Confirmation of updated flows/loads
- Assess impact on facilities
- Parallel support for NPDES renewal (2024)
- Establish CIP, Financial Plan and SDC recommendations

Key Stakeholders

The following are the key stakeholders that Jacobs will engage with to collaboratively deliver this project:

- DEQ
- WRF staff
- Collections system staff
- City Council
- Public Relations consultant

PROJECT APPROACH

1. Overall Project Management Approach

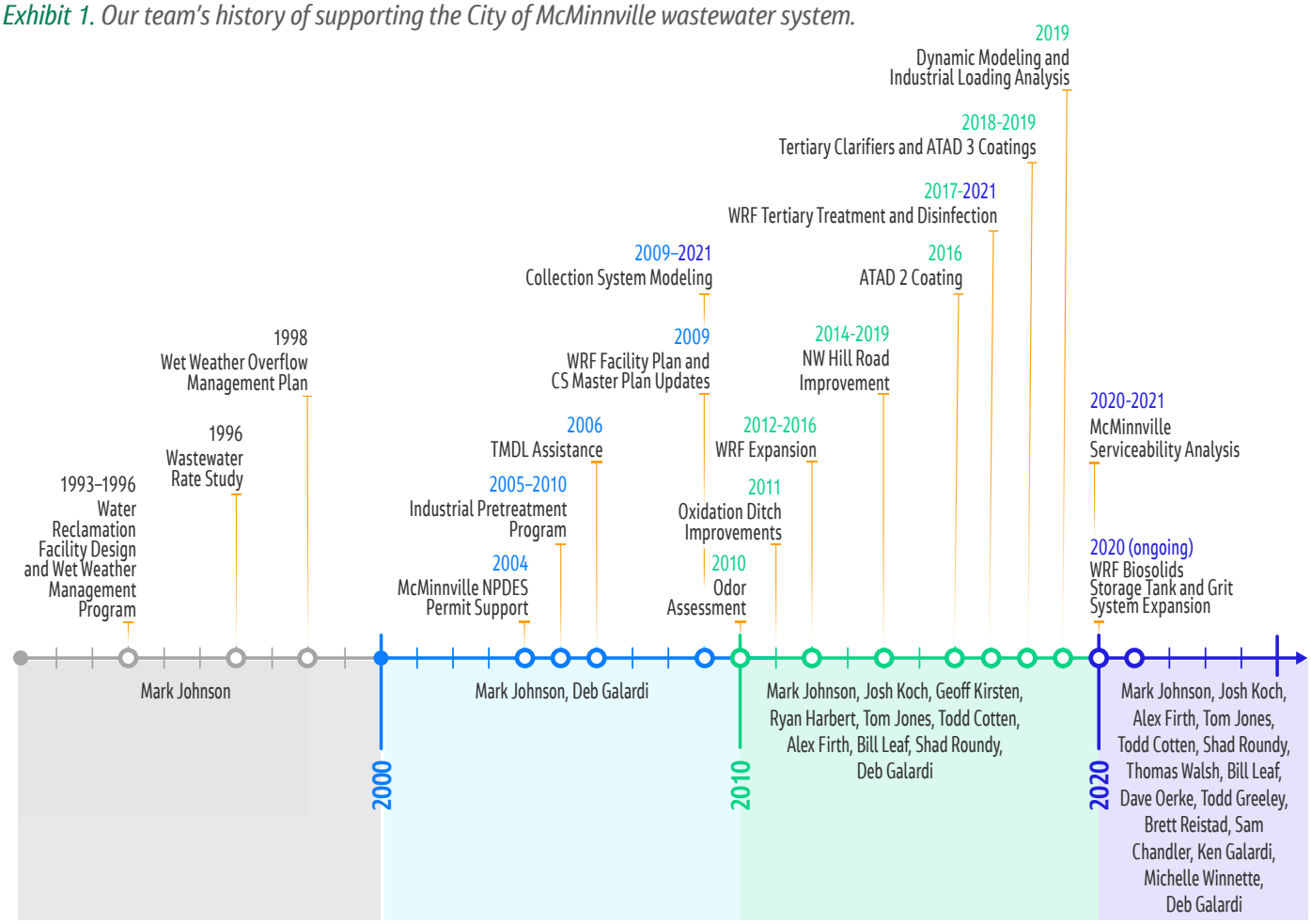
Our experience with McMinnville demonstrates that we deliver on time and within budget and this project will be no different. We will move this project forward, delivering the solutions you need, on schedule and on budget. While avoiding surprises is our goal, successful project management is defined by the way we work together through challenges.

Similar to other projects Josh has managed, he will schedule regular meetings with Leland to provide status updates on all ongoing tasks. Josh will issue brief meeting notes from these calls documenting action items. Where work involves communication with third parties or other City staff, Josh or the assigned task lead will summarize communication in an email or memorandum and submit it to the City for project documentation.

2. Approach and Methodology for Preparing Project Cost Estimates

We understand that accurate cost estimating is an important part of the alternatives evaluation and funding process for the City. Our lead cost estimator, Tom Jones, has 24 years of construction cost estimating background and has been performing cost estimates for Jacobs for 14 years. Tom and Josh have worked together on several projects for the City and together have a history of delivering accurate cost estimates, including for the City on the recent WRF Tertiary Treatment and Disinfection Project where the engineer's estimate was within 1.6% of the average of all bidders.

Exhibit 1. Our team's history of supporting the City of McMinnville wastewater system.



3. Tasks and Activities Organization and Accomplishment

Detailed description of our team's approach to organizing and accomplishing the tasks in the RFP can be found below under **Jacobs Master Planning Approach.** The **PROJECT SCHEDULE** section shows how the proposed tasks and deliverables will support our proposed approach and address the primary issues and milestones.

4. Jacobs' Team Members

The Jacobs' team is uniquely qualified to complete this work. Our team has both extensive history supporting the City with complex projects and has delivered similar master planning work. Josh has worked on all aspects of complex projects with the City for almost a decade, including the last three major projects at the WRF. Other key team members, including Shad Roundy, Craig Massie, Matt Noesen, Bill Leaf, and Dave Oerke have been integral to the success of recent projects for the City. Deb Galardi's two decades of experience with the City will be critical in efficiently delivering a rate evaluation. Mike Pina's experience with flow monitoring will help to quickly progress this critical path work. Together, we are the right team to lead the City through this project because we know your people and your processes, and we have direct applicable experience with projects like this one. This translates directly into savings of time and money for the City. More details of our team may be found in the **PROJECT TEAM EXPERIENCE** section.

5. Approach to Completing Tasks

Detailed description of our team's approach to organizing and accomplishing the tasks in the RFP can be found below under **Jacobs Master Planning Approach**. The **PROJECT SCHEDULE** section shows how the proposed tasks and deliverables will support our proposed approach and deliver results in a timely manner.

6. Unanticipated Issues Approach

Josh manages his projects by continually monitoring progress and communicating frequently with his clients. Our team will meet project milestones by planning the work realistically, engaging the City for key input and decisions at the right time, managing our QA program to avoid re-work, and delivering on our commitments. If project changes occur, we will identify the potential change, provide alternatives and recommendations for City consideration, gain City endorsement of the required approach, and implement that change — all with an eye on the project schedule and total project cost.

7. Quality Assurance and Quality Control Procedures

Delivering quality work through all phases of a project is the cornerstone of our success. We will implement our standard practices for QA/QC, completing required internal reviews of all work products prior to client delivery. Craig Massie will serve as QA/QC Lead and develop a Quality Management Plan that dictates QA/QC practices for the project and the team's roles and responsibilities for this project. Craig is uniquely positioned based not only on his experience serving in this role for current and past McMinnville projects, but also on his recent experience developing master plan updates for the cities of Dallas and Coos Bay.

8. Interaction and Engagement with Stakeholders

We understand the City's staff is busy and continually managing competing priorities. Jacobs' job is to progress the project and keep it on schedule and budget to maximize the value of the time City staff spend focused on the project. Early and frequent coordination with DEQ will be critical to aligning the City's new NPDES permit with the recommended plan.

9. Deliverables From Each Task and Activity

As identified above, intermediate deliverables throughout the planning process will document understanding, direction, and agreement as we work together towards the final deliverables of a WRF Master Plan and Conveyance System Master Plan. These deliverables are shown in more detail in the proposed project schedule in the **PROJECT SCHEDULE** section.

10. Key Points of Input and Review with City Staff

Communication with City staff is critical throughout the Project. We realize that staff have primary job responsibilities outside the Project and we respect their time and limited availability. We've identified a series of workshops as shown in the **PROJECT SCHEDULE** section with City staff throughout the process to gather input and reaction.

Jacobs Master Planning Approach

Project Approach: Collection System

The City recently adopted and expanded the Urban Growth Boundary (UGB). Based on the selected areas for expansion, the City must consider improvements to extend the collection system and improve capacity of existing infrastructure. In 2020, we worked with the City in supporting the UGB Expansion Serviceability Study, which considered impacts of growth at a high level on the collection system.

COLLECTION SYSTEM FOCUS AREAS:

- *Growth impacts on existing gravity interceptors adjacent to Cozine Creek.*
- *Feasibility and permitting requirements of gravity interceptor improvements in creek corridors.*
- *Alternatives to improve gravity sewer capacity by pumping out of creek corridors and routing additional capacity into public rights of way (roadways).*
- *Local planning to extend sewer capacity and associated timing.*
- *Impact of growth and growth timing on downstream interceptors and pump stations.*

As recommended in the 2009 Master Plan, the City's investments in infiltration and inflow (I&I) reduction have reduced peak wet weather flow impacts on the collection system. **Our team can assist the City in developing an optimized Collection System Master Plan that balances additional I&I reduction and asset replacement with system capacity upgrades to support growth in the expanded Urban Growth Boundary, as we have done recently for both Clackamas County Water Environment Services and Clean Water Services.**

Our approach to the Collection System and Facility Plans includes:

Basis of Planning: Apply an integrated approach to planning system flow and loads between the treatment plant and the collection system.

Flow Monitoring: Flow meter data will be used to characterize dry weather and wet weather conditions, including system response to I&I. Flow monitoring should be deployed in the collection system for the dry weather season starting in Summer 2022 and the wet season in late 2022 and early 2023.

Collection System Model Update and Calibration: Update the City's collection system model with new infrastructure and calibrate the model for dry and wet weather seasons.

To facilitate future model updates, we will ensure that a one-to-one correlation with City GIS for pipelines and manholes. Additionally, we will work with City staff to select a modeling platform that could be used by other consultants and City staff.

Collection System Capacity Analysis: Confirm criteria for evaluating capacity risk and characterize system capacity limits and remaining capacity. The collection system model will be used to perform a capacity assessment that includes:

- *Hydraulic Deficiency Mapping*: Deficiency results are represented using GIS mapping to help guide discussion of improvement requirements.
- *Wet Weather Flow Characterization*: In addition to hydraulics deficiencies, the model output can be used to summarize I&I and ground water infiltration and to future opportunities to further reduce I&I impacts.
- *Climate Impacts*: Climate impacts may include an increase in frequency and intensity of storms over the next 50-years. We will identify a climate sensitivity design storm and perform a sensitivity analysis on system capacity and I&I rates.

Infrastructure Condition and Asset Management: Evaluate infrastructure replacement for the collection system and pump stations. We will leverage any data the City may already have assembled to identify priorities for a repair and replacement program. If condition data is unavailable, we can work with you to develop this information.

Improvement Alternatives Evaluation: Develop, review, and score improvement alternatives. We will assist City staff in selecting the optimal combination of collection system and facility improvements for an integrated CIP. The collection system alternatives evaluation will include a review of the City's I&I reduction program, improvement options to extend the collection system to the new UGB, and capacity upgrade options for existing interceptors and pump stations.

Project Approach: WRF Facilities

We will thoroughly characterize all aspects of the WRF and offsite processes, including the raw sewage pump station and prescreening facility. This includes refining the existing whole-plant process model and updating our whole-plant

hydraulic model to incorporate any changes resulting from the collection system modeling activities. Major activities include:

Modeling: Bill Leaf and Todd Greeley will update the model used on recent WRF projects. The model will confirm capacities of existing treatment processes and will help to size and configure process alternatives required to meet future conditions and scenarios.

Condition Assessment: Kurt Lind from our Operations Management group specializes in condition assessment of water and wastewater facilities, including recent assessments for Wenatchee, WA, Brookings, OR, and Gresham, OR. He will provide thorough documentation of the City's process assets.

Update Existing Evaluations: Based on results of the collection system, process, and hydraulic modeling and condition assessment, our team will revisit the recommendations from recent studies performed by Jacobs to determine where updates are need. The reports will be revised and repurposed for inclusion in the updated WRF Master Plan. Leveraging the following will provide an efficient starting point for updated recommendations:

- WRF Expansion Project Definition Report (Jacobs, 2013)
- WRF Tertiary Tertiary Treatment and Disinfection Schematic Design Report (Jacobs, 2018)
- WRF Biosolids Storage Tank and Grit System Expansion Project Definition Report (Jacobs, 2021)

Project Approach: Regulatory Inputs to Master Plan Updates and NPDES Permitting

Understanding the Regulatory Landscape: We will work with the City to develop a resilient regulatory strategy that incorporates changes since the last Master Plan Update in 2009 while accounting for State and Federal policies that continue to evolve, such as ammonia, nutrients (nitrogen and phosphorous), copper, mercury, and temperature. We will work closely with the City to support the NPDES permit renewal and coordinate impacts with the Master Plan.

The following identify specific regulatory requirements to be evaluated in the Master Plan and NPDES permitting:

Copper and Aluminum

Metals of particular concern for the WRF discharge to the Yamhill River include copper, aluminum, and mercury. DEQ uses the Biotic Ligand Model (BLM) for copper to calculate site-specific acute and chronic copper criteria based on two years of effluent and river data collections. Aluminum water quality criteria are also being implemented as site-specific and seasonal criteria. Jacobs has supported many municipal discharges in addressing copper and aluminum issues.

Mercury

On Feb. 4, 2021, EPA issued the Final Revised Willamette Basin Mercury TMDL to address methyl mercury in fish tissue. Based on this TMDL, the City is a Designated Management Agencies (DMAs) to work with DEQ to monitor total mercury in effluent and in collection system sources to achieve TMDL targets. Jacobs has developed and implemented mercury minimization plans for Oregon dischargers.

Temperature

The existing NPDES permit includes excess thermal load (ETL) limits based on DEQ's current Total Maximum Daily Loads (TMDLs) for the Willamette River Basin. The temperature TMDL is currently being revised by DEQ, and revised ETL limits are anticipated to be implemented in the NPDES permit renewal. Jacobs has experience solving temperature challenges for Willamette Basin dischargers.

303(d) Listings

Another regulatory constraint to WRF operations are DEQ's 303(d) listings water quality impairments in the South Yamhill River. DEQ's draft 2022 303(d) listings (Category 5) at the WRF discharge site include: temperature (year-round), iron (total), dissolved oxygen during spawning period (Oct. 15- May 15), and phosphorus. Temperature and mercury are addressed in the Willamette Basin TMDL. The dissolved oxygen listing may be of concern since it could lead to wet season nutrient limits. Recently, Jacobs provided technical support to reverse dissolved oxygen listings on the Columbia River that would have severely impacted their treatment operations for two large dischargers.

Contaminants of Emerging Concern

Emerging contaminants, including PFAS, have received increased attention in recent years. We have helped many communities develop public communications plan and sampling plans, including recent sampling activities at the WRF. Characterizing PFAS concentrations plays a role in developing biosolids management strategies.

Permitting Strategy: Developing a permitting strategy that addresses regulatory constraints to WRF discharges to the South Yamhill River will be important to protect the City in NPDES permit renewal. **Full engagement with DEQ prior to and during the permit development process will help to control the outcome**. The existing NPDES permit for the City was issued in 2004, expired in December 2008, and is administratively extended until renewed by Oregon DEQ. DEQ is planning to issue a new permit in 2024. The draft permit development and review process may be initiated in 2023 and continue into 2024. Key drivers in the development of the City's NPDES permit are the WRF effluent quality, dilution performance of the WRF outfall, and Yamhill River water quality.

The dilution performance of the WRF Outfall 001 is documented in the 2011 Outfall Mixing Zone Study Addendum (by Jacobs), and this study may need updating with current effluent flows. The 2011 study also recommends revisions to the mixing zone definitions in the NPDES permit since WRF dilutions are restricted by seasonal low river flows and stream dimensions. This should be negotiated with DEQ during permit renewal.

The NPDES permit includes seasonal and river flow-based effluent limits for CBOD and TSS, as well as water quality-based effluent limits for ammonia and total phosphorus that will need to be reevaluated and negotiated with DEQ. The current permit also includes an excess thermal load limit during the dry season and DEQ is in the process of revising Temperature TMDLs in the Willamette Basin to be consistent with current state temperature standards. The current permit does not include water quality-based effluent limits for metals or organic chemicals, and this should remain an attainable goal.

Project Approach: Capital Improvement Program

We will prioritize capital projects, develop implementation strategies, and recommend a Capital Improvement Program (CIP). We will assist the City in reviewing project phasing and developing accurate costs for capital projects which will be coordinated with rate and SDC review for project funding. Additionally, project phasing and implementation strategies will be reviewed with City staff and documented for each capital project. After the capital improvement program has been developed and to facilitate plan adoption, we will assist the City's public relations consultant in presenting the Master Plans to the City Council and the public and respond to any concerns to facilitate plan adoption.

- *Cost Estimates*: In addition to our accurate wastewater facility cost estimating capabilities, we have developed a database of regional costs from contractor bids for a range of conveyance projects.
- *Phasing Analysis*: To prioritize projects in the capital improvement program, we can perform phasing alternatives analysis using the collection system model to understand the implications of varied growth timing and project sequencing.
- *Implementation Timing*: Flow triggers for each project can be developed to help the City adjust project implementation timing based on available capacity and contributing flows in the system.

Project Approach: Rate Analysis and SDC Development

Financial Analysis: The City has a long-standing practice of reviewing wastewater rates every two years and implementing rate increases to keep pace with cost escalation and system investment needs. The financial analysis provides the framework from which to estimate future rate changes needed to support implementation of the recommended CIP, and to fund ongoing operations, maintenance, and capital replacement costs. We will analyze information from the City's current operating budget and the Master Plan to project O&M requirements and capital improvement costs for the planning period (generally 10-20 years). Revenue under existing rates will be projected based on water use and growth trends, and we will work with the City to develop a rate increase strategy to meet the projected requirements.

Rate Review: The project also provides an opportunity for a rate equity review to ensure that the rate structure reflects the system's updated cost structure and customer usage characteristics. The last rate equity review was completed in 2015 and phased in over a multi-year period. We will work with City staff to identify and evaluate various rate structure issues, including evaluation of fixed versus volume cost recovery, and further development of the strength-based volumetric rates. We will work with the City to evaluate the rate issues with respect to relevant criteria including impacts on revenue adequacy and stability, rate equity, ease of implementation and updating, experiences of other utilities, public acceptance, and others identified by the City.

Sustem Development Charge (SDC) Recommendations: The City has not updated the wastewater SDCs in over a decade. To be defensible, SDCs must recover costs from new development in proportion to projected capacity requirements. We will use information from the master plan update to evaluate existing system available capacity for determining the 'reimbursement' fee and determine the portion of planned improvement costs that are needed for future growth needs to determine the 'improvement' fee.

It is common practice to structure SDCs in such a way that furthers a local jurisdiction's broader policy objectives related to housing affordability, economic development, and other policies. SDC programs may include focused incentives to housing types (e.g., affordable housing and accessory dwelling units) or sizes (e.g., scaled SDCs based on square footage of home). We will review current SDC policies and practices (e.g., inflationary update) and determine with the City whether any changes are needed to reflect more recent policy objectives and legal requirements.

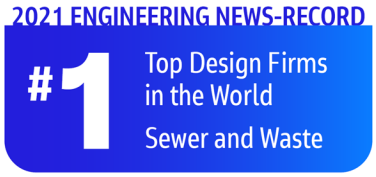
JACOBS' EXPERIENCE

Jacobs is an industry leader in providing integrated wastewater planning that results in innovative solutions for wastewater facilities and collection systems. We have helped hundreds of clients successfully plan and implement their capital improvement programs in Oregon, the Northwest, and across the globe. Our firm and team members' experience includes advanced knowledge of all wastewater treatment processes and optimized conveyance solutions.

Jacobs' History

Primary Business Experience

Jacobs provides integrated wastewater planning and engineering services, including facilities plans, asset management, and condition assessments, program management, wastewater treatment, and conveyance design, construction management, and operational services. In 2021, ENR ranked Jacobs as the #1 Top Design Firm in the World for Sewer and Waste for the fourth consecutive year.



In Business | Since 1946

Ownership | Corporation

Employee Resources | 58,000 employees worldwide; 1,200 Oregon; 248 Corvallis office

Office Locations | Jacobs has 400+ offices worldwide. Local Oregon offices are in Portland, Bend, and Corvallis.

Legal Qualification to Work in Oregon | Jacobs Engineering Group Inc. (Jacobs) is legally qualified to perform the work requested in the State of Oregon and holds Oregon Business Registry number 064469-83.

Proposed Team Qualifications

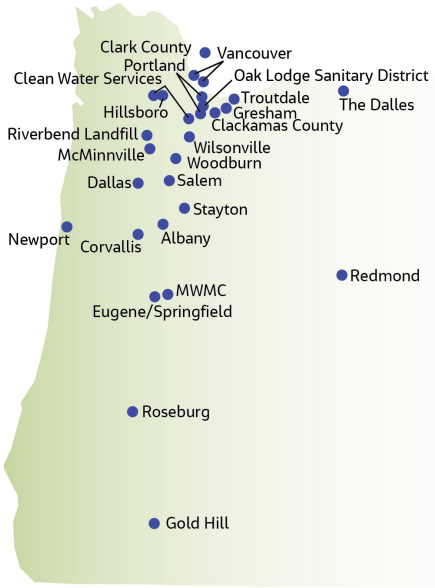
The City is embarking on a significant project and the selection of the right team to deliver the Master Plan Updates is a key decision. Our engineering team includes seasoned staff, which is essential to assist you with making the right decisions during the selection of capital improvement projects and phases of work for facility improvements, expansion, and investment. Their insights and experience from having assisted hundreds of clients to develop master planning documents and facility designs are expanded upon in **PROJECT TEAM EXPERIENCE**. Our proposed team will provide unique insights that will directly benefit the City. We have augmented our internal Jacobs team with select sub-consultants, whom we have worked with previously and who possess unique knowledge and expertise to provide successful delivery of the City's wastewater master planning goals.

Deborah Galardi, SDC / Rate Development, has a focused career in the review and study of financial instruments for municipalities with expertise in water, sewer, and drainage rate setting. She has performed as project manager for wastewater system financial planning, rate, and system development charge studies for dozens of cities in Oregon, including Newberg, Carlton, Dundee, Portland, Albany, and Bend. She has assisted the City of McMinnville in biennial rate reviews for over two decades and has also worked with the city to update the wastewater rate structure (most recently in 2015) and SDCs.

Mike Pina, Flow Monitoring / Regional Manager, ADS, LLC operating as Environmental Services (ADS), is in its 46th year of service to the water/wastewater industry. It is the largest and most recognized leader in flow metering and monitoring services. ADS' long-term service to the industry is based on innovation and a deep commitment to excellence. They achieve this through a unique, comprehensive approach to providing field and technical services, equipment, and software. Equally, their intimate knowledge of collection system applications enhances their ability for superior execution. Mike Pina, Regional Manager, has experience working in virtually every aspect of sewer collection, installation, data analysis, smoke testing, physical inspection, flow isolations, and micro-monitoring.

Jacobs' Work Experience

We offer extensive experience in wastewater facilities planning, permitting, asset management, and design. Jacobs provides integrated wastewater planning and engineering services that include facilities plans, asset management, and condition assessments, program management, wastewater treatment, conveyance design, construction management, and operational services. This breadth of expertise has enabled us to help hundreds of clients across the nation plan a wide range of wastewater infrastructure projects. This planning experience will be combined with our industry-leading wastewater design, construction, and operations practices to deliver a creative and cost-effective capital improvements roadmap.



DISCHARGER	REVIEWS FOR PERMIT RENEWAL & SUPPORT STUDIES
Wilsonville WWTP	2018 & 2020
Ashland WWTP	2015-16; 2020-21
Coos Bay STP #1 & #2	2016, 2018 & 2020
Corvallis WWTP	1997, 2006-07 & 2020
Clackamas Tri City WWRF	2012, 2021
Gresham	2018 & 2021
Portland Columbia Blvd WTP	2019
Portland Tryon Creek WTP	2014 & 2017
Camas WWTP	2016-2017
Discovery Clean Water Alliance – Salmon Creek WWTP	2003, 2005, 2011, 2015-16, 2019-2021
Vancouver Marine Park WRF	2005, 2009, 2015 & 2019 to present
Vancouver Westside WRF	2005, 2015, & 2019 to present
Clackamas Hoodland WPCF	2017
Clackamas Kellogg Creek WWRF	2017
Dallas OR WWTP	2016, 2018, 2021
Troutdale Energy Center	2012-2014
Centralia WWTP	2008, 2010, 2015 & 2019
Georgia-Pacific Toledo	2010-12 & 2020-21
Oregon LNG - Warrenton	2013-2015
Kapstone Longview Mill	2014
Dyno Nobel St Helens	2020-2021
Oak Lodge Sanitation District	2014 & 2017
MWMC Eugene-Springfield WPCF	2014

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We offer a proven track record of success in permitting wastewater facilities in the Willamette Basin. The Jacobs team has completed ten different permitting-related projects for facilities discharging in the Willamette Basin. The table here shows our recent experience with NPDES renewal support for discharges in the lower Columbia and Willamette Basins and SW Washington. We have an unmatched understanding of your facilities and the permitting environment in the Willamette Basin. We have completed similar planning efforts for Oak Lodge Sanitary District, Portland Bureau of Environmental Services (BES), Albany, Corvallis, and Metropolitan Waste Management Commission (MWMC) of Eugene-Springfield. Our team has demonstrated successful engagement with Oregon DEQ in reviewing and approving facilities plans. We are skilled at navigating the Willamette Basin's unique regulatory issues using innovative compliance strategies, including credit trading, NPDES "bubble permits" that apportion a load across multiple facilities, and treatment process solutions.

Capital Projects, Collection System Modeling, and Master Planning;

McMinnville, Oregon

Relevance: Long history of successful delivery of design, modeling, planning, and rate analysis work for the City by the proposed project team.

CLIENT: City of McMinnville

PROJECT STATISTICS

Scope
WRF Facility Plan and Collection System Master Plan; Treatment plant expansion, permitting, landscape architecture; Tertiary filter upgrade and UV retrofit design

Type of Facility
Water Reclamation

Years Projects Completed
2007-present

Project Size
3-acres / $10.4M (WRF Expansion); $1.9M (Tertiary / UV Filter)

KEY STAFF INVOLVEMENT

- Mark Johnson, Principal-in-Charge
- Josh Koch, Project Manager
- Dave Oerke, ATAD Technologist
- Bill Leaf, Process Technologist
- Todd Greeley, Process Lead
- Brett Reistad, Solids Handling Technologist
- Geoffrey Kirsten, Architectural QC
- Sam Chandler, Civil Engineer
- Matt Noesen, UV Subject Matter Expert
- Dave Wilson, Outfall/NPDES Permit
- Tom Jones, Cost Estimating
- Shad Roundy, Collection System Planning and Modeling Lead, UGB Expansion
- Thomas Walsh, UGB Expansion Analysis
- Sven MacAller, Collection System On-Call Modeling and Capacity Mapping
- Alex Firth, Structural Engineer
- Todd Cotten, Geotechnical Engineer
- Ryan Harbert, Electrical Engineer
- Ken Galardi, Odor Control Engineer
- Michelle Winnette, I&C Engineer

OWNER REFERENCE

Leland Koester, Wastewater Services Manager; P: 503.434.7313;
E: Leland.koester@mcminnvilleoregon.gov

WRF Solids Treatment Capacity Improvements (2020 – present): Jacobs delivered a comprehensive evaluation of the existing solids treatment and biosolids handling processes at the WRF. The recommended project, presently in design, will provide new ATAD digesters with improved performance, a new odor control system, improvements to the Biosolids Storage Tank, and PLC replacement.

McMinnville Collection System Modeling On-Call Support (2010 – present): Our team has been providing on-call modeling and planning support for the City associated with collection system capacity since the previous Collection System Master Plan. Analysis has included development analysis support and system-wide review of targeted I&I reduction work for assessment of remaining system capacity.

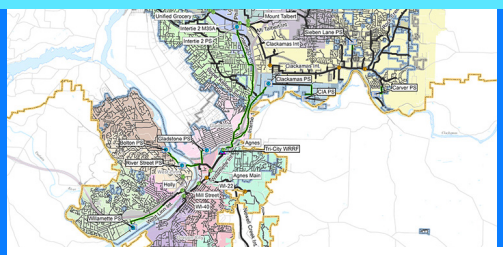
McMinnville UGB (2020 – 2021): Our team assisted the City in evaluating the impact of urban growth expansion in targeted areas around the City and the associated requirements to expand sewer, water, storm, and transportation infrastructure. The work included discussions of how to expand the City's collection system to support future growth.

Tertiary Treatment and Disinfection (2017 – 2019): Originally advertised as an expansion of the tertiary filter facility and replacement of the UV system. Jacobs' preliminary design evaluation recommended upgrade of the existing filters, instead of expansion, saving the City 66%. The tertiary filtration system was retrofitted to include updated controls for improved efficiency.

WRF Secondary Expansion (2013 – 2016): Our team developed full plant process and hydraulic models as part of evaluating secondary treatment alternatives. The recommended project – a third secondary treatment train – increased secondary capacity to 32 MGD and included a new Orbal oxidation ditch, secondary clarifier, RAS pumping station, mixed liquor split box and associated large diameter piping. **The project received the 2014 Pacific Northwest Clean Water Association – Lower Columbia Section "Project of Year Award".**

Outfall Mixing Zone Study (2008 & 2011): Jacobs conducted a field and modeling mixing zone study of the McMinnville WRF discharge into the South Yamhill River in 2008 in preparation for the NPDES permit renewal. The study was completed prior to the publication of the DEQ's Regulatory Mixing Zone – Internal Management Directive (RMZ-IMD), however, the collected data were sufficient to meet the RMZ-IMD requirements. In 2011, an addendum report was prepared after Yamhill River flows were corrected higher by USGS, resulting in increased dilutions for the WRF discharge.

WRF Facility Plan and Collection System Master Plan (2007-2009): WRF Facilities Plan and Collection System Master Plan were developed concurrently to evaluate alternatives and develop a recommended plan for continued dry and wet weather permit compliance. The plans set forth an approach to reduce I/I, reduce flow to the WRF to 32 mgd and expand the WRF to accommodate dry and wet weather flows and loads through buildout. City successfully implemented recommended projects resulting in reduced I/I and the ability to treat higher wet weather flows.



Master Planning and Outfall Designs and Studies;

Portland, Oregon

Relevance: Lower Willamette Basin water quality issues, water quality-based effluent limits, NPDES permitting, asset management, condition and capacity assessments, master planning

CLIENT: Clackamas Water Environment Services

PROJECT STATISTICS

Scope

Master Planning, Design, Permitting, Services During Construction

Type of Facility

Collection System, Conventional Activated Sludge, Outfall (Kellogg); Conventional Activated Sludge and MBR and Outfall (Tri-City) Rotating Biological Contactor and Outfall (Hoodland)

Years Projects Completed

2012-present

Project Size

2019 Master Plan: $1.5M

KEY STAFF INVOLVEMENT

- Mark Johnson, Principal-in-Charge
- Matt Noesen, Project Manager
- Dave Wilson, Outfall/NPDES Permit
- Tom Jones, Cost Estimating
- Shad Roundy, Collection System Planning and Modeling Lead
- Sven MacAller, Collection System Planning and Modeling

OWNER REFERENCE

Lynne Chicoine, Capital Program Manager;
P: 503.310.9906;
E: lchicoine@clackamas.us

Clackamas County Collection System Master Plan: Jacobs completed a comprehensive Collection System Master Plan for Clackamas County WES in 2019. The project included capacity and condition assessments for thirteen trunk sewers, nine regional pump stations, and two intertie pump stations which control flow between two treatment facilities. Jacobs team members developed an innovative approach to optimize the capital improvement program and evaluate the cost-effectiveness of reducing impacts from I&I. The approach compared system-wide capital and O&M costs for conveyance, treatment, storage, and flow reduction. Statistical analysis and condition data were used to evaluate system risk and infrastructure degradation. Forty sub-basins were sequentially modeled for three I&I reduction levels and five future timeframes to develop targeted reduction levels and a timeframe for implementation. Capacity and condition improvement alternatives were further optimized considering pipeline routing, project phasing, and pump station operations. WES is currently using the plan to implement a $100 million capital improvement program in the conveyance system including a flow reduction program with member communities.

Kellogg Creek WRRF Outfall Improvement Project: In 2014-2017, Jacobs developed the design and oversaw implementation of Willamette River outfall improvements consisting of extension of a 48-inch steel outfall and the addition of a 120-foot multi-port diffuser. This outfall provides improved discharge dilutions and mixing to allow WES to avoid challenging effluent ammonia limits. Major elements included river studies, design, construction permitting, services during construction, and NPDES permit assistance.

Tri-City WRRF Outfall Modification Project: In 2012, Jacobs completed a fast-track design for alternative outfall concepts to increase dilution and avoid effluent ammonia limits, while successfully meeting a DEQ compliance deadline. Modifications involved the addition of a 48-inch elastomeric check valve and flow control changes to improve dry season dilution. In 2012, DEQ commended the project for excellence in a letter to WES. Major elements included receiving water characterization, planning/conceptual design, design, installation permitting, and NPDES permit assistance.

Tri-City WRRF Outfall Improvement Project: Jacobs has developed the conceptual and preliminary design for a replacement 90-inch outfall from the WRRF to the Willamette River. The new outfall will extend 500 feet in the river channel and include a 150-foot multi-port diffuser. This new outfall will serve as the primary outfall for the WRRF and will substantially increase discharge dilutions, relocate the discharge offshore and deeper, and will allow WES to avoid effluent ammonia limits. Major elements include river studies, design, construction permitting, and NPDES permit assistance. Jacobs is currently serving as the Owners-Agent during the design-build stage of this project.

EXAMPLE PROJECT #3: GRESHAM WWTP MASTER PLAN UPDATES AND OUTFALL PROJECTS

Reuse Planning & Process Improvements and Outfall Improvements for Gresham; Gresham, Oregon

Relevance: Water Quality Issues, Water Quality-Based Effluent Limits, NPDES Permitting, Asset Management, Condition and Capacity Assessments, Effluent Reuse Assessment, Energy Optimization, Biogas Utilization, Biosolids Management Planning, and Outfalls.

CLIENT: City of Gresham, OR

PROJECT STATISTICS

Scope

Facilities Planning, Capacity Assessments, Liquids Treatment, Biosolids/Biogas Assessments, Regulatory Review, Outfall Improvements

Type of Facility

Conventional Activated Sludge

Years Projects Completed

2017 (second WWTP Master Plan Update)

Project Size

58 mgd peak, $200K contracted value (2017 WWTP Master Plan Update)

KEY STAFF INVOLVEMENT

- Matt Noesen, Project Manager
- Dave Wilson, Regulatory Lead
- Dave Oerke, Solids Treatment Lead
- Brett Reistad, Solids Process Engineer
- Tom Jones, Cost Estimating

OWNER REFERENCE

Alan Johnston, Project Manager 1333 NW Eastman Parkway Gresham, OR 97030; P: (503) 618-3454; E: alan.johnston@greshamoregon.gov

2008 Reuse Study: Jacobs performed a study to evaluate long-term reuse opportunities. The study considered a broad range of potential water sources including wastewater effluent, stormwater, rainwater, industrial process water effluent, and non-potable wells from shallow aquifers. A custom Jacobs total water management model was utilized to develop optimal long-term solutions for a new urban growth area. The model evaluated numerous alternatives matching up water sources and uses while considering various storage alternatives.

2009 to 2011 Process Improvements: During process improvements predesign energy conservation measures (ECMs) were identified to optimize treatment efficiency as well as evaluation of the business case for receiving external high-strength waste. Jacobs designed and assisted with construction implementation of the identified improvements which formed the cornerstone of the City achieved net-zero electricity use for the WWTP.

2017 WWTP Master Plan Update: Jacobs updated the Wastewater Facility Master Plan to evaluate 20-year growth and evolving water quality regulatory requirements. The project included an adaptable liquids treatment plan, alternatives to allow the City to defer construction of a third anaerobic digester, an investigation of options to attain Class A biosolids, and options to expand the use of excess electricity and heat generated from the combined heat and power system.

Related Follow-on Activities: Subsequent to the 2017 Master Plan, Jacobs has conducted the following work with the City of Gresham:

- Outfall Mixing Zone Study (2018)
- Business case evaluation study to assess the economics of accepting food waste slurry and transforming the material into renewable energy. The study was partially funded by the Energy Trust of Oregon. (2020)
- Solids Thickening Predesign and Dewatering Optimization Studies (2020)
- NPDES Permit Renewal Assistance (2021)
- Jacobs is currently designing improvements to solids thickening that were recommended in the predesign. (ongoing)
- Advanced Digestion Pilot Study (ongoing)
- Jacobs is poised to evaluate treatment alternatives that will maximize the use of existing infrastructure, optimize current operations, and bring the most promising technologies for consideration over the 20-year planning horizon.
- Gresham WWTP Outfall Improvement Project (Ongoing)
- NPDES Permit Renewal Assistance (2021)

PROJECT TEAM EXPERIENCE

The City of McMinnville has defined a comprehensive scope of planning activities covering collection, treatment, regulatory relations, sustainability, resilience, and stakeholder involvement. We bring local expertise in all these areas, supplemented by national expertise in areas where a national vantage point is of value to McMinnville, such as national trends in biosolids management. Our project manager and treatment, collection, and permitting leads create a compact, core team of individuals with direct experience working for the City. Our organization chart in below shows this core team, along with our entire team of proposed resources. Our success begins by chartering and partnering with your staff to become one team, exploring and developing the best ideas and approaches to create a Master Plan we all can support and be proud of.

MCMINNVILLE PROJECT MANAGER
Leland Koester

PRINCIPAL-IN-CHARGE
Mark Johnson, PE

QUALITY MANAGER
Craig Massie, PE

JACOBS PROJECT MANAGER
Joshua Koch, PE
Project Manager

Wastewater Reclamation Planning
Matt Noesen, PE

Liquid Treatmeant Lead
Bill Leaf, PE *

Solids Treatment Lead
Dave Oerke, PE *

Effluent Reuse Lead
Jason Smesrud, PE, CWRE

Liquids Process Engineer/ Process Modeling
Todd Greeley

Solids Process Engineer
Brett Reistad, PE

Condition Assessment Lead
Kurt Lind

Collection System Planning
Shad Roundy, PE

Modeling & Optimization
Sven MacAller, PE
Thomas Walsh, PhD

Condition Assessment Lead
Dan Buonadona, PE *

QA/QC
Mark Johnson, PE

Flow Monitoring
Mike Pina ADS

Regulatory
David Wilson

Local Limits & NPDES
Erin Thatcher

Climate Resiliency
Tyler Jantzen, PE *

SHARED RESOURCES

Cost Estimating
Tom Jones

Civil Engineer
Sam Chandler, PE

Odor Control
Ken Galardi, PE

Architect
Geoff Kirsten, RA NCARB

Building Services
Patrick Rausch, PE

Structural Engineer
Alex Firth, PE, SE

Instrumentation & Controls
Michelle Winnette

Electrical Engineer
Ryan Harbert, PE

Geotechnical Engineering
Todd Cotten, PE

SDC/Rate Development
Deb Galardi G

LEGEND

Key

Subconsultants
ADS ADS Environmental
G Galardi Rothstein Group

* Registered professional engineer in another state.

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Meet the Management Team

Our team is led by our **Project Manager, Joshua Koch, PE**, your single point of contact for delivering the Master Plan Updates. We selected Josh due to his more than 16 years of experience in water and wastewater treatment plants and conveyance planning, design, construction, and project management in the Northwest. For over 10 years, Josh has delivered water and wastewater projects in McMinnville.

Josh is committed to the project at least 30% of his time for the duration, including scope negotiations, coordination of project deliverables, and facilitation at workshops. His trusted relationship with Leland Koester is an asset to the city, providing collaborative work approaches and clear communication.

Mark Johnson, Principal in Charge, specializes in the design, analysis, and management of water resources, non-point source pollution, municipal collection system, and drainage projects. He has managed collection system master plan projects and infiltration and inflow analyses, including the 2009 Collection System Master Plan for McMinnville. In addition to his project work, Mark currently serves in a regional leadership role for Jacobs. As Principal in Charge, Mark will hold our project team accountable to deliver on our commitments for this important project.

Key Team Members

Our **Quality Manager, Craig Massie,** will lead our quality control team. Craig has served in this role for numerous projects throughout the Northwest, including several recent projects for McMinnville. He has also recently completed facility plan updates for the Dallas and Coos Bay, which brings specific expertise to our team, especially related to coordinating with DEQ.

The **Wastewater Reclamation Planning** will be led by **Matt Noesen**, an experienced wastewater engineer focused on planning and implementing those plans for wastewater utilities throughout the Northwest. Matt has delivered several master plans in Oregon, including for MWMC and Gresham. Matt also has decades of experience in disinfection, including design support for the recent WRF UV upgrades.

Our **Collection System Planning and Modeling Lead, Shad Roundy**, has a career's worth of experience in wastewater collection system modeling work and is well-regarded by clients throughout the Northwest. Shad has more than 19 years of experience in collection system master planning including work for Clean Water Services (Washington County), Bureau of Environmental Services (Portland), Water Environment Services (Clackamas County), Metropolitan Wastewater Management Commission (Eugene/Springfield), Clark Regional Wastewater District (Clark County), and many cities throughout Oregon. Shad has recently delivered capacity analyses and urban grown boundary evaluations for McMinnville.

Regulatory Lead, David Wilson has over 25 years of experience with wastewater regulatory issues including developing facility master plans, performing wastewater discharge compliance assessments, leading NPDES permit development negotiations, as well as leading water quality and outfall studies and designs. Dave has developed regulatory and water quality evaluations for numerous facility-planning documents for clients in Oregon and Washington, applying his knowledge of state water quality standards and NPDES regulations. He will lead and inform our regulatory deliverables so that we are coordinated with DEQ permitting schedules/deadlines.

WASTEWATER FACILITY AND COLLECTION SYSTEM MASTER PLANNING; CLEAN WATER SERVICES, OR

Clean Water Services is a wastewater district serving 600,000 residents in Washington County, Oregon in four collection and treatment basins. Jacobs completed work on the East Basin Facility and Collection System Plan in 2021 and is currently working on the West Basin Facility and Collection System Plan. As a subconsultant, Jacob's role in the projects has included planning, stakeholder engagement, flow and load projections, treatment process modeling, liquids expansion analysis at the Durham Treatment Plant, and Collection System alternatives analysis. Collection system alternatives included options for pipeline improvements up to 72-inches, wet weather pumping, infiltration and inflow reduction, pipeline rehabilitation, and wet weather storage. The West Basin Plan includes a complex decision support process to cost effective solution across the collection system, treatment systems, and flow transfer systems between three treatment facilities.

PROJECT TEAM EXPERIENCE (CONT.)

The table below provides details of our core project team, including key team members and sub-consultants. The nature of delivering efficient master planning work means that level of engagement and required availability from individual team members will vary over the course of the project. For key team members, general availability and specific expected time engagement for this project are indicated.

NAME | ROLE | CREDENTIALS	CURRENT ASSIGNMENT | RELEVANT EXPERIENCE
	Key Team Current Assignments
 **JOSHUA KOCH, PE | PROJECT MANAGER** Availability: 40% | Engaged: 25% » B.S., M.S., Civil/Environmental Engineering » Professional Engineer: OR, WA, HI » Location: Corvallis, OR	» Project Mgr; WRF Solids Treatment Capacity Improvements; McMinnville, OR » Design Mgr; Durham UFAT design; Clean Water Services; Durham, OR » Design Mgr; Recycled Water Project; Dallas, OR » Project Mgr; WRF Tertiary Treatment and Disinfection and WRF Expansion projects; McMinnville, OR
 **MARK JOHNSON, PE | PRINCIPAL-IN-CHARGE** Availability: 20% | Engaged: 10% » B.S., M.S., Civil Engineering » Professional Engineer: OR » Location: Portland, OR	» Project Mgr; Taggart Outfall Repair; City of Portland, Bureau of Environmental Services, OR » Project Mgr; Sanitary Sewer System Master Plan, Clackamas County, Water Environment Services, OR » Project Mgr; Collection System Analyses, Multiple Projects; City of McMinnville, OR » Collection System Lead; Sanitary Sewer Facilities Plan; City of McMinnville, OR » Design Lead; WRF, Multiple Projects; City of McMinnville, OR » Project Mgr; Sanitary Sewer, Multiple Projects, Clackamas WES, OR
 **CRAIG MASSIE, PE | QUALITY MANAGER** Availability: 20% | Engaged: 10% » B.S., Mechanical Engineering » Professional Engineer: OR, WA, ID » Location: Corvallis, OR	» Project Mgr; Durham UFAT Design; Clean Water Services; Durham, OR » Project Mgr; Water Supply Expansion Evaluation; City of Dallas, OR » Project Mgr; WTP Services During Construction; City of Silverton, OR » Project Mgr; WWTP 1 Final Design; City of Coos Bay, OR » Project Mgr; Scott WTP Water System Improvements and Expansion; McMinnville Water & Light; McMinnville, OR
 **MATT NOESEN, PE | WASTEWATER RECLAMATION PLANNING LEAD** Availability: 30% | Engaged: 20% » M.S., Environmental Engineering » B.S., Electrical Engineering » Professional Engineer: OR » Location: Olympia, WA	» Task Lead; NPDES Permit Renewal Support; City of Gresham, OR » Project Manager; Westside and Marine Park capacity assessments and NPDES permit renewal assistance, City of Vancouver, WA » Project Mgr; WWTP Master Plan Update; City of Gresham, OR » Project Mgr; Facilities Plan Updates & SDC; MWMC; Eugene, OR
 **DAVID WILSON | REGULATORY LEAD** Availability: 30% | Engaged: 20% » M.S., Marine Sciences » B.S., Marine Sciences & Aquatic Biology » Location: Bellevue, WA	» Technical Lead; Gresham Outfall Improvement Project; City of Gresham, OR » Technical Lead: Clackamas Tri-City Outfall Improvement Project; Clackamas WES, OR » Technical Lead; NPDES Permitting Support, Water Quality Evaluations & Outfall Mixing Studies; City of Corvallis, OR » Technical Lead; Kellogg Creek WPCP Outfall Improvement Design; Clackamas WES; Oregon City, OR

NAME | ROLE | CREDENTIALS

CURRENT ASSIGNMENT | RELEVANT EXPERIENCE

Key Team Current Assignments

SHAD ROUNDY, PE | COLLECTION SYSTEM PLANNING LEAD

Availability: 25% | Engaged: 20%

- B.S., M.S., Civil/Environmental Engineering
- Professional Engineer: OR, ID, WA
- Location: Portland, OR

- Technical Lead and Project Manager; East and West Basin Facility and Collection System Master Plans; Clean Water Services; Durham, OR
- Technical Lead; Urban Growth Expansion Study, Utility and Infrastructure Analysis; City of McMinnville, OR
- Technical Lead; Collection System Master Plan; Clackamas WES; Clackamas County, OR
- Technical Lead; Oregon Collection System Master Plan and Urban Growth Expansion Studies; City of Bend, OR

BILL LEAF, PE | LIQUID TREATMENT LEAD

- B.S., M.S., Civil Engineering
- Professional Engineer: WA, ID
- Location: Boise, ID

- Senior Reviewer/QA-QC; Corvallis Whole-Plant Modeling; City of Corvallis, OR
- Senior Technology Consultant; Water Restoration Plant Improvements; City of Grants Pass, OR
- Senior Technology Consultant; Nampa WWTP Phase 1 Upgrades; City of Nampa, ID

DAVID OERKE, PE | SOLIDS TREATMENT

- B.S., M.S., Civil/Environmental Engineering
- Professional Engineer: CO
- Location: Denver, CO

- Senior Technical Consultant; Thickening & Dewatering Evaluation & Preliminary Design, Columbia Blvd. STEP Treatment Expansion; City of Portland BES; Portland, OR
- Senior Consultant; Thickening Equipment Alternatives & Predesign, Solids Dewatering Optimization Study; City of Gresham, OR
- Project Mgr; Dewatering Facility Improvements Study & Design Projects; South Platte Renew; Englewood, CO

JASON SMESRUD, PE, CWRE | EFFLUENT REUSE LEAD

- B.S., M.S., Civil/Environmental Engineering
- Professional Engineer: OR
- Location: Portland, OR

- Project Mgr; Ashland WWTP Outfall Relocation Study, Outfall Mixing Zone Study, & Outfall Preliminary Design; City of Ashland, OR
- Project Mgr; Woodburn WWTP Natural Treatment Systems Pilot Studies; City of Woodburn, OR
- Design Mgr; Belfair Forestlands Irrigation Reuse Project; Mason County, WA
- Project Mgr; Riverbend Landfill Leachate Irrigation Program; City of McMinnville, OR

TODD GREELEY | LIQUIDS PROCESS ENGINEER | PROCESS MODELING

- M.S., Environmental Science in Civil & Environmental Engineering
- B.S., Environmental Analysis
- Location: Corvallis, OR

- Process Modeler; Corvallis WRP; City of Corvallis, OR
- Process Modeler; Ashland WWTP; City of Ashland, OR
- Facility Lead; Dallas WWTF; City of Dallas, OR
- Process Modeler; Salmon Creek WWTP; Discovery Clean Water Alliance; Vancouver, WA
- Process Lead; San Luis Obispo WRRF; City of San Luis Obispo, CA

PROJECT TEAM EXPERIENCE (CONT.)

NAME | ROLE | CREDENTIALS	CURRENT ASSIGNMENT | RELEVANT EXPERIENCE

BRETT REISTAD, PE | SOLIDS PROCESS ENGINEER

- B.S., Mechanical Engineering
- Professional Engineer: OR, CA
- Location: Corvallis, OR

- Mechanical & Biogam Treatment Lead; Solids Handling Improvements Project; Clackamas WES; Oregon City, OR
- Centrifuge Lead; Durham AWWTF Dewatering Centrifuge Replacement Project; Clean Water Services; Tigard, OR
- Design Mgr; Southeast Plant Biosolids Digestion Facilities; San Francisco Public Utilities Commission; San Francisco, CA

KURT LIND | CONDITION ASSESSMENT

- B.S., Mechanical Engineering
- US Coast Guard 3rd Assistant Engineer
- ASME Owner QA Installation Rep
- Location: Turlock, CA

- Condition Assessment Lead; WWTP Asset Management, Maintenance Strategies, and Condition Assessments; City of Gresham, OR
- Condition Assessment/Alternatives Evaluation Lead; Water Treatment Plant Asset Condition Assessments, City of Seattle, WA
- Condition Assessment Lead; Condition Assessment and Capital Improvement Planning; Xcel Energy Chiller Systems; Denver, CO
- Condition Assessment Lead; WWTP Condition Assessment and Capital Improvement Planning; City of Wenatchee, WA

SVEN MACALLER, PE | MODELING & OPTIMIZATION

- M.S., Environmental Engineering, Urban Water Resources
- B.S., Civil & Environmental Engineering
- Professional Engineer: OR
- Location: Portland, OR

- Technical Support; East and West Basin Facility and Collection System Master Plans; Clean Water Services; Durham, OR
- Technical Support; Collection System Modeling; City of McMinnville, OR
- Technical Support; Collection System Master Plan; Clackamas County WES; Clackamas, OR
- Technical Lead; Collection System Master Plan and Urban Growth Expansion Studies; City of Bend, OR

THOMAS WALSH, PHD | MODELING & OPTIMIZATION

- B.S., M.S., PhD, Civil/ Environmental Engineering
- Location: Portland, OR

- Technical Support; Collection System Modeling; Clean Water Services; Durham, OR
- Technical Support; Urban Growth Expansion Study, Utility and Infrastructure Analysis; City of McMinnville, OR
- Technical Support; Collection System Modeling and CSO Storage Operations; City of Everett, WA

DAN BUONADONA, PE | CONDITION ASSESSMENT LEAD

- M.S., Environmental Engineering
- B.S., Civil Engineering
- Professional Engineer: KS, WA
- Location: Seattle, WA

- Project Engineer; Cedar Treatment Plant Ozone Contact Pipeline Assessment & Rehabilitation; Seattle Public Utilities; Renton, WA
- Project Technologist; Havana Street Watermain Rehabilitation; Aurora Water, CO
- Project Technologist; East Layton Pipeline Rehabilitation; Weber Basin Water Conservancy District; Layton, UT
- Project Engineer; Raw Water Intake, Tunnel, Pipeline Condition Assessment; City of Bellingham, WA

NAME | ROLE | CREDENTIALS	CURRENT ASSIGNMENT | RELEVANT EXPERIENCE

MIKE PINA (ADS ENVIRONMENTAL SERVICES) | FLOW MONITORING

- B.S., Business Management
- AAS Electronics Systems
- Location: Tukwila, WA

- Project Lead; Turn-key Services; Seattle Public Utility; Seattle, WA
- Project Lead; Flow Metering Services; King County, WA
- Project Lead; I/I Assessment, Capacity Planning; Citizens Energy Group; Indianapolis, IN
- Project Lead; I/I Assessment, Capacity Planning; Oakland County Water Resources Commission; Waterford, MI

ERIN THATCHER | LOCAL LIMITS & NPDES

- B.S., M.S., Environmental Engineering
- Professional Engineer: WA
- Location: Seattle, WA

- Project Mgr; Coal Creek Trunk Upgrade Phase 1 - 3; King County Dept of Natural Resources & Parks, WW Treatment Division; Seattle, WA
- Staff Engineer; Salmon Creek Treatment Plant, Columbia River Outfall & Effluent Pipeline Capital Projects; Discovery Clean Water Alliance; Vancouver, WA
- Technical Lead; Port Townsend Outfall Replacement; City of Port Townsend, WA

TYLER JANTZEN, PE | CLIMATE RESILICENCY

- M.S., Environmental & Water Resources Engineering
- B.S., Civil Engineering
- Professional Engineer: WA
- Location: Seattle, WA

- Water Engineer; Phased Climate Resilience Flood Assessment; Arlington County, VA
- Water Resources Engineer; Green Infrastructure Program Implementation; City of Lancaster, PA
- Climate Change Analyst; Climate Change & Natural Hazard Resiliency & Security Consultation; US Dept of State; Washington, D.C.

DEB GALARDI (GALARDI ROTHSTEIN GROUP) | SDC & RATE DEVELOPMENT

- B.S., Economics
- Woman Business Enterprise (OR #621)
- Location: Portland, OR

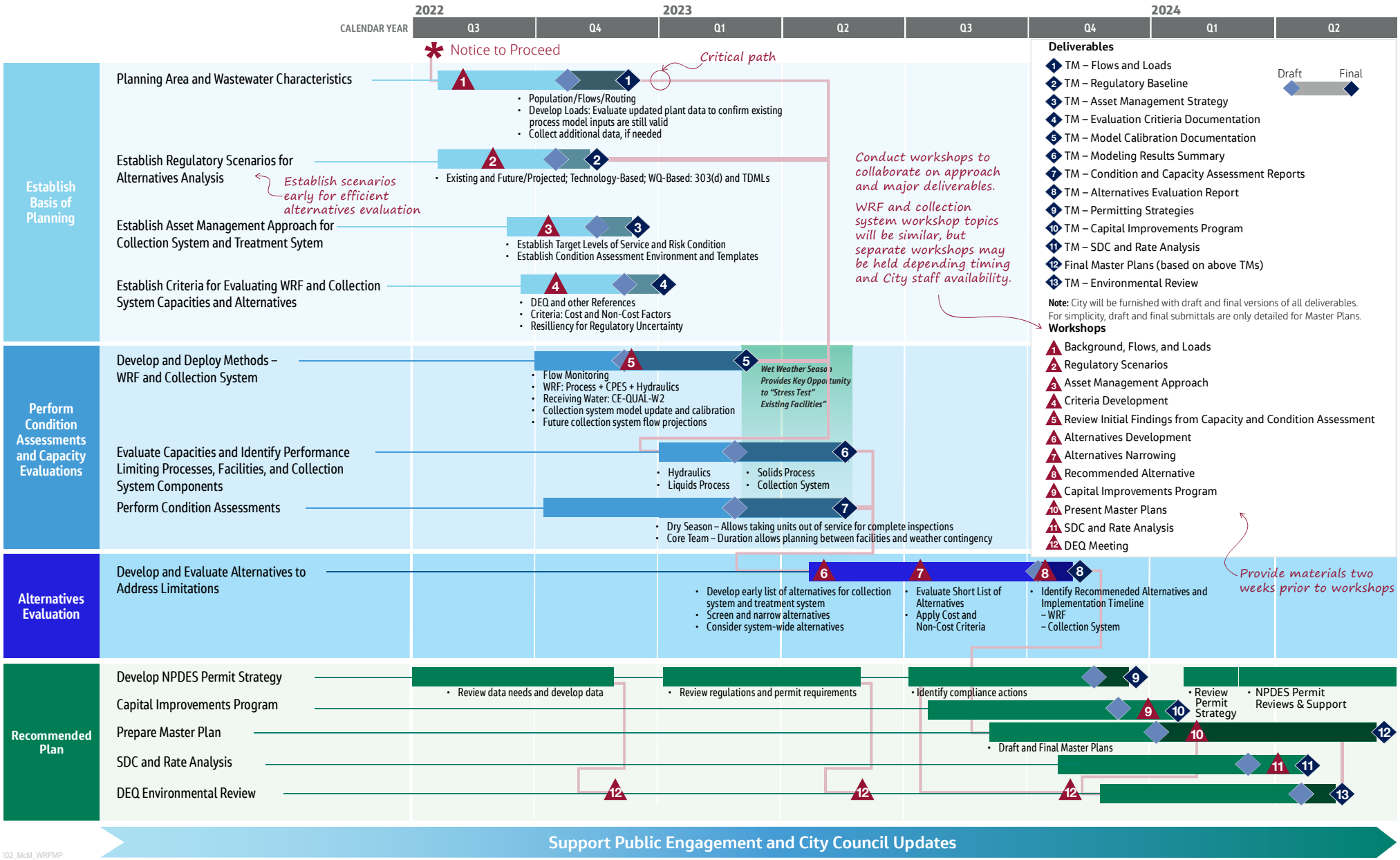
- Rate Study Lead; Wastewater Rate Studies; City of McMinnville, OR
- Project Mgr; Wastewater & Stormwater Cost-of-Service Rate & SDC Study; City of Portland, OR
- Financial Consultant; Salem Water, Wastewater, and Drainage Utility, City of Salem, OR

PROJECT SCHEDULE

Josh will maintain close control over the project schedule, with multiple internal milestones tracked for each deliverable to the City. The critical path for this Project is flow monitoring work since completion of this task drives the start of collection system modeling. Flows and loads that result from collection system modeling impact the schedule for evaluating treatment facilities.

Our proposed schedule aims to maximize the engagement of the City's stakeholders by distributing workshops across the span of the Project with adequate intervals for City feedback between each workshop. This allows our team to correct course if needed and continue in a forward direction to maintain the schedule. Where possible, we will run concurrent tasks helping both the Jacobs and City teams to keep focus and work toward the final deliverables.

PROJECT SCHEDULE (CONT.)



APPENDIX A - RESUMES

Joshua Koch, PE

PROJECT MANAGER

Education/Qualifications

M.S., Civil and Environmental Engineering, University of Wisconsin, Madison

B.S., Civil and Environmental Engineering, University of Wisconsin, Madison

Certifications/Training

- ✓ Professional Engineer: Oregon (No. 82538); Washington (No. 43413); Hawaii (No. 17190)

Years of Experience

16

Joshua Koch has 16 years of experience in water and wastewater treatment projects worldwide. Within the past several years his focus has shifted almost exclusively to project management and quality management, primarily in Oregon, including multiple projects for the City of McMinnville. Josh has intimate knowledge of the WRF, having worked with the City on all aspects of complex projects for over 10 years. He knows first-hand the importance of a collaborative work approach with clear communication and has worked diligently to nurture a trusted relationship with City staff. Josh brings a focus on delivering projects from start to finish – from preliminary design to construction and startup. He has held a variety of field positions, including construction management, client representative, resident engineering, and inspection on drinking water and wastewater treatment projects.

Relevant Project Experience

McMinnville WRF Biosolids Storage Tank and Grit System Expansion Project; City of McMinnville, OR: *Project Manager.* Managed the engineering services for preliminary design phase, which focused on a planning-level evaluation of solids processing and Class A biosolids handling side of the WRF. Project required closely reviewing the 2009 Master Plan and providing a comprehensive update to the solids treatment portion, including flow/load projections, alternatives analysis, and CIP recommendations. Project required close coordination with Oregon DEQ.

McMinnville WRF Tertiary Treatment and Disinfection Project; City of McMinnville, OR: *Project Manager.* Managed the engineering services for retrofit of the City's existing UV system and tertiary filters from planning through construction on this $1.9 million project that required closely reviewing the WRF Master Plan assumptions, adjusting where necessary, and implementing solutions that provide exceptional value for the City. Project required development of detailed construction sequencing that incorporated complicated constraints based on maintaining existing WRF operations.

McMinnville Water Reclamation Facility Multiple Coating Projects; City of McMinnville, OR: *Project Manager.* Managed the engineering and inspection services for multiple coatings projects at the Water Reclamation Facility. Projects included coating of existing steel digesters, secondary clarifiers, and tertiary clarifiers.

McMinnville WRF Expansion Project; City of McMinnville, OR: *Project Manager, Assistant Design Manager, and Process Lead.* Led facility design of the new Orbal oxidation ditch, secondary clarifier, return sludge pump station, and hydraulic modifications to multiple existing facilities on $10.4 million water reclamation facility expansion. Negotiated sole-source equipment package with vendor for $530,000 of aeration equipment. Coordinated Engineer's construction cost estimate within 1% of average of all contractor bids. Managed day- to-day design activities, resulting in an on-time, on-budget design project. Managed design team during construction.

Dallas WWTF Recycled Water Project; City of Dallas, OR: *Design Manager.* Managed the design team from preliminary design through bid document development for addition of a Class A recycled water system to the existing treatment facility. Unit processes included continuously backwashed sand filters, hypochlorite storage and feed, chlorine contact

basin, effluent cooling towers, and replacement of existing UV disinfection equipment. Estimated construction cost is $8 million.

Durham UFAT Project; Clean Water Services; Tigard, OR: *Design Manager.* Managing design of fermenter replacement, pipe gallery, biofilter odor control system, and various site improvements. Estimated construction cost is $10.5 million.

Tri-City WRRF Solids Handling Improvements Project P632162; Clackamas County WES; Oregon City, OR: *Quality Manager.* Managed the team of senior QC review engineers to ensure continuous QC and coordination with engineering leads, documentation of review comments and responses, and facilitation of high-level coordination between disciplines.

Sunnyvale Secondary Treatment and Dewatering Project; City of Sunnyvale; Sunnyvale, CA: *Design Manager.* Managed the design team for the solids handling portion of the $225 million project, including thickening, dewatering, polymer feed, odor control, digested sludge storage, and sidestream treatment. Project structure required complex coordination with other consultants to deliver several facilities and engineer disciplines as part of a larger program of projects.

Scott Water Treatment Plant Upgrade and Expansion; MW&L; McMinnville, OR: *Resident Engineer.* Worked as resident observer with construction management, resident engineering, inspection, and Site Safety Coordinator duties on a challenging, remote $30 million CM/GC drinking water treatment plant upgrade and expansion. Construction management duties included tracking contractor's schedule, reviewing pay requests and contingency adjustments, presenting construction progress to client, managing special inspection subcontractor, and organizing Jacobs' on-site staffing. Project was on schedule and on budget. Minimal contingency usage exceeded expectations and was well-below industry average. Resident engineering duties included reviewing and approving RFI and submittal responses, coordination between contractor and design engineers, and coordinating startup activities. Inspection duties included soil and rock compaction, concrete, masonry, grout, rebar and anchor, process pipe and hydraulic structure leak testing, and equipment performance testing. Site Safety Coordinator duties included responsibility for all Jacobs staff and subcontractor safety with no reportable incidents.

Phase 5B2 Primary Treatment and Hydraulics Improvements Project; Clean Water Services; Tigard, OR: *Project Manager and Design Manager.* Managed design of new Headworks Effluent Structure, primary influent piping, biofilter, chemical metering pumps, and various site improvements on $4.9 million project. Developed construction sequence to meet complicated existing conditions and constraints. Coordinated Engineer's construction cost estimate within 2.5% of average of all contractor bids. Design schedule was constrained but completed on time and under budget. Managed design team during construction under budget.

Air Emissions Control Equipment Replacement; Hollingsworth & Vose; Corvallis, OR: *Project Manager.* Managed two projects, from inception through startup, which replaced existing wet scrubbing emissions control equipment dry filtration technology to drastically reduce emissions, improve site appearance, and reduce noise. Project was highly visible to the community and included complicated permitting aspects, including the Willamette River Greenway, floodplain, conditional development review, and PIPC scope.

Residuals Renovations and Improvements to Building D/2; Upper Occoquan Service Authority; Centreville, VA: *Design Manager.* Managed the design team on complicated replacement of existing digester pipe gallery, addition of centrifuges, and extensive electrical upgrades. CM/CG delivery required significant coordination with contractor during design on this $18.3 million project.

Mark Johnson, PE

PRINCIPAL-IN-CHARGE | QA/QC

Education/Qualifications

M.S., Civil Engineering (Infrastructure Planning and Management/Water Studies), Stanford University, California

B.S., Civil Engineering, University of Santa Clara, California

Certifications/Training

✓ Professional Engineer: Oregon (No. 17666PE)

Years of Experience

38 years

Mark Johnson brings extensive experience managing planning work for the City of McMinnville's collection system over the past three decades. As a project manager, collection system engineer, and water resources engineer with 38 years of experience, Mark specializes in the assessment, rehabilitation, design, analysis, and management of sanitary and stormwater collection systems. He has managed numerous master plan sanitary sewer projects, combined sewer plans, and infiltration and inflow (I&I) cost effectiveness analyses. These projects have included the use of GIS tools and dynamic hydrologic and hydraulic models. Mark's work has also included the design, installation, and management of sanitary, combined, and flood and drainage control structures to meet specific capacity and water quality objectives. He has provided master plan level input to Utility Rate and System Development Charge (SDC) development, and production of implementable improvement plans.

Mark's expertise includes leading interdisciplinary teams to develop the decision tools and multiple-objective decision analysis needed to efficiently manage data, compare options, develop alternatives, and implement design projects. Mark also has a regional management team role at Jacobs to oversee the successful delivery of a portfolio of projects to our clients in the Northwest. This combined experience will be applied to his roles as Principal-in-Charge and QA/QC on the City's Master Plan Updates project to meet quality, schedule, and budget goals established jointly by Jacobs and City staff. Mark will hold our project team accountable to deliver on our commitments for this important project.

Relevant Project Experience

Sanitary Sewer Facilities Plan; City of McMinnville, OR: *Collection System Lead.*
Developed a plan to manage sanitary sewer overflows as an update to the Wet Weather Overflow Management Plan. Reassessed cost-effective solutions for flow management including a combination of infiltration and inflow control, conveyance, and treatment. The project included a sensitivity analysis of design storm duration, frequency, and historical system performance to contribute to the facilities plan recently approved by DEQ and the completion of a CMOM checklist.

Multiple Collection System Analysis Projects; City of McMinnville, OR. *Project Manager.*
Extensive experience managing planning work for the City of McMinnville's collection system includes the Sanitary Sewer Facilities Plan and other tasks to assess impacts to collection system capacity due to various proposed developments. The model used for these analyses was developed as part of previous projects including the Sanitary Sewer Conveyance Master Plan Update that identified conveyance improvements and inflow and infiltration (I&I) reduction requirements to manage sanitary sewer overflows. This work was an update to the previous Wet Weather Overflow Management Plan. These projects developed cost effective solutions for flow management and service to growth areas including a combination of infiltration and inflow control, conveyance, and treatment. The Master Plan Update included a sensitivity analysis of design storm duration, frequency, and historical system performance to contribute to the facilities plan recently approved by DEQ and the completion of a CMOM checklist.

Lafayette Avenue Upgrade; City of McMinnville, OR: *Storm Drainage Design.* Provided storm drainage system analysis and design for this heavily traveled 2-mile urban arterial. The project included public involvement, extensive storm and sanitary sewer improvements, pedestrian amenities, roadway widening, one new and two upgraded existing railroad crossings, realignment and improvements to two intersecting roadways, and two new signalized intersections.

Wet Weather Overflow Management Plan; City of McMinnville, OR: *Task Leader.* Led the production of Wet Weather Flow Management Plan that included elements of peak flow storage, conveyance improvements, and infiltration and inflow reduction. Wet weather flow control alternatives included the evaluation of retrofitting the former plant site for intermittent wet weather flow treatment. Regulatory acceptance, operational requirements and construction feasibility were all considered in the evaluation and selection of the final combination of control technologies.

Sanitary Sewer Master Plan; Clackamas Water Environment Services (WES); Clackamas County, OR: *Project Manager.* Working with a highly collaborative group of Clackamas County staff, completed the management of the WES $1.05M master plan in March 2019. The Plan identified immediate needs in the sanitary sewer system and developed a corresponding set of capital improvement opportunities that WES can implement through the year 2040. The Plan was developed to provide a least-cost combination of conveyance and treatment improvements that provide maximum value across the system, including local infrastructure rehabilitation (tributary collection and local laterals), trunk line gravity conveyance upsizing, regional and intertie pump station upsizing, and wastewater treatment expansion. The Plan built on an existing asset management framework to create a prioritized list of sustainable, long-term service alternatives, and provides guidance to member cities on future flow rates and rainfall-derived infiltration and inflow reduction targets and locations.

Sanitary Sewer Master Plan; Clackamas WES, Hoodland Area and Service District No. 1; Clackamas County, OR: *Project Manager.* Performed capacity and condition assessments of the collection system, treatment plant and outfall to the Sandy River. This project applied many of the same approaches used in the Master Plan for then Service District #1 completed in 2009, also managed by Mark. Both the North Clackamas and Hoodland Plans (completed in 2017) combine condition assessment of the collection system (including pump stations) with a capacity assessment using a risk-based asset management approach.

Sanitary Sewer Master Plan; Clackamas County Service District No. 1; Clackamas County, Oregon: *Project Manager.* Identified and developed solutions for collection system hydraulic deficiencies, performed condition assessment of district pump stations, developed a framework for asset management of district facilities, and produced a prioritization process that can be expanded to other Clackamas County Water Environment Services-managed infrastructure elements. A critical element of the analysis included the service to growth areas that impacted downstream system elements.

Upper Tualatin Interceptor Master Plan and Owner's Advisor for Progressive Design-Build Contract; Clean Water Services (CWS); Hillsboro, OR: *Project Manager.* Project identified sanitary sewer collection system impacts for near- and long-term growth in the western and southern boundary of the Durham Basin, considering growth within the existing Urban Growth Boundary and potential future growth areas within the Urban Reserve adjacent to the Cities of Beaverton, Tigard, King City, Sherwood, and Tualatin and within the District boundaries. The long-term infrastructure plan and capital improvement plan included pump station and large diameter pipeline infrastructure to serve the planned growth areas. Jacobs served as an advisor to CWS on the progressive Design-Build project that implements the early phases of the Master Plan improvements.

Sanitary Sewer Model Calibration and GIS Integration; CWS; Hillsboro, OR: *Project Manager.* The project resulted in the calibration of converted InfoSWMM hydraulic models for the Rock Creek and Durham basins for the sanitary sewer system. The project involved review of the model data that represents the existing system and identification of continuity or other discrepancies that would impact model function and output, development of new flow-based design storms, and assessment of deficiencies for multiple land use and design storm combinations. The model has been applied in the Durham basin to assess and mitigate sanitary sewer overflows, resulting in the design and construction of an in-line storage facility.

Craig Massie, PE

QUALITY MANAGER

Education/Qualifications

B.S., Mechanical Engineering, Washington State University

Certifications/Training

✓ Professional Engineer: Oregon (No. 16043PE); Washington (No. 31685); Idaho (No. 8754)

Years of Experience

35

Craig Massie is a highly skilled Quality Manager and Project Manager with over 35 years of experience designing and overseeing major civil/mechanical water and wastewater infrastructure, water resources, fish passage, and hydroelectric projects in the Pacific Northwest. He brings specialized expertise encompassing municipal and industrial planning and design, construction, quality management, and project management. In the last 17 years, he has managed water and wastewater projects totaling over $300 million in construction value. He has proven experience in alternative delivery, including progressive design-build (DB), design-build-operate (DBO), design-bid-build (DBB), and construction manager/general contractor (CM/GC). Craig has a strong relationship with the Oregon Health Authority (OHA) staff and experience with execution of planning, design, and construction to meet OHA's requirements. Craig's success as a well-respected leader comes from his keen ability to build strong relationships with clients and project teams to ensure that project scope, costs, schedule, and accountability are clearly communicated and understood, to deliver quality projects on time and on budget.

Relevant Project Experience

Coos Bay Wastewater Treatment Plant (WWTP) 1 Facility Plan (FP) Amendment; City of Coos Bay, OR: *Project Manager.* Managed planning services associated with updating the FP. Successfully worked with the City to convince DEQ that a full FP was not required, instead a lower cost amendment focusing on the plant condition, liquids treatment alternatives, and flow and load analysis updates was sufficient. During the execution of this amendment, additional scope to evaluate solids handling, recognizing the impact of sludge transferred from WWTP2 was added, as was bench scale testing of chemically-enhanced, primary treatment (CEPT). CEPT is a promising and cost-effective way to minimize treatment expansion within the footprint of the existing plant infrastructure.

Corvallis WWRP Process Modeling; City of Corvallis, OR: *Project Manager.* This 2020 Project included a WWRP Load Analysis, Regulatory Analysis and Whole Plant Modeling effort to determine which treatment plant unit process(es) become treatment/capacity limiting when using updated load and flow projections, and likely future regulatory conditions. Updated load analysis included wastewater influent projections for loads for the next 20 years based on existing wastewater characteristics, and population projections, consistent with DEQ planning guidelines.

Dallas WWTF Recycled Water Project; City of Dallas, OR: *Project Manager.* Managing the $9 million project to add tertiary treatment to the Dallas WWTF to create recycled water for industrial and irrigation use. Project included coordination with Oregon DEQ on Facility Plan Update, Recycled Water Use Plan development, associated environmental permitting, Water Pollution Control Facility permit application, treatment package preselection for filtration, and design of pumping and recycled water disinfection facilities. Project also includes the replacement of the plant effluent UV disinfection system.

Durham WRRF UFAT Upgrade; Clean Water Services; Hillsboro, OR: *Project Manager.* Managing the design of improvements to the $10.4 million Durham Water Resource Recover Facility's Unified Fermenting and Thickening (UFAT) facility. Design includes refurbishment of gravity thickeners, replacement of pumps, piping and valves in the

associated equipment tunnel, and refurbishment of the associated biofilter odor control system.

Water and Wastewater Treatment, Distribution and Collection; City of Dallas, OR: *Program Manager.* Client service manager/program manager for numerous water and wastewater system projects for the City. Meets frequently with the Dallas City Council to provide updates on project status. Jacobs has, or is, conducting 20 projects under water system and wastewater system engineering services contracts. Projects include filter-to-waste improvements at the City's water plant, reservoir cover addition, water master plan update, and wastewater collection system improvements.

Silverton WTP Upgrade Project; City of Silverton, OR: *Project Manager.* Currently managing the design phase services for the $10 million project for a new 4 MGD water treatment plant including a filter treatment package supplied by WesTech, associated piping, chemical systems, backwash pumping system, electrical, instrumentation and controls improvements in a new approximately 6,500 sf building. Site improvements included landscape improvements, concrete paver parking area, and approximately 1,000 feet for new 20-inch raw water transmission pipeline. Design was 100% complete in January 2022 and will bed in summer 2022.

Dallas Raw Water Supply Expansion Project; City of Dallas, OR. *Project Manager.* Project is to evaluate and recommend an expansion to the Dallas water supply storage reservoir. Project is evaluating several on and off channel reservoir and dam locations, coordination with state agencies and identification of a preferred dam and reservoir location.

Scott WTP Water Master Plan; MW&L; McMinnville, OR: *Quality Control Reviewer.* Quality Control reviewer for the pipeline, treatment plant, and hydraulics portions of the 2014 Water Master Plan.

Spokane Riverside Park Water Reclamation Facility Next Level of Treatment (NLT) Project; City of Spokane, WA: *Project Manager.* Managed the design of the $200 million program to achieve the NLT at the facility. Assisted with selection of two membrane vendors for extended piloting followed by competitive selection of the membrane vendor. Assisted in the evaluation of project delivery options and selection of the CM/GC delivery approach. Participated in the CM/GC delivery authorization and selection of the CM/GC and value engineering/ constructability reviews with the owner, engineer, and CM/GC during the design phase. Improvements include additional primary clarification, aeration basin improvements, chemical feed system improvements, secondary clarification improvements in addition to the 50-mgd nominal capacity microfiltration membranes. The tertiary treatment process will remove phosphorus to the lowest level currently targeted in North America.

Wastewater System Improvements; City of Albany, OR: *Program Manager.* With subconsultant Carollo Engineers, Craig managed the $83 million program that included conveyance and treatment plant improvements to eliminate sanitary sewer overflows from the City's wastewater system and manage effluent temperature. Managed Jacobs' design of the $55 million (construction dollars) treatment plant improvements that included new headworks, aeration, secondary clarification, and disinfection. Also managed the $3.2 million (construction dollars) North Albany Lift Station and Forcemain Project executed by CM/GC delivery. Providing program management oversight to the $17 million (project cost) wetlands treatment project associated with the thermal load reduction of the Albany effluent plus the effluent of an industrial partner.

Scott WTP Water System Improvements and Expansion; McMinnville Water & Light (MW&L); McMinnville, OR: *Project Manager.* Managed facility planning process and subsequent design and construction of $27 million project to expand the MW&L water treatment plant from 13 to 22 mgd and remodel the existing treatment facilities. The facility plan was a very comprehensive evaluation of options for expanding capacity of the 30-year-old direct filtration plant. After reviewing a broad range of alternatives, MW&L elected to upgrade and expand the plant using plate settlers for improved solids removal ahead of expanded media filtration. The existing site was heavily constrained by both the existing facilities and the steep topography. During the evaluation of potential delivery approaches, the decision was made that the CM/GC approach would best serve the project. The conversion from DBB to CM/GC was made following the 60% complete design deliverable. Project was completed on schedule and under budget.

Matt Noesen, PE

WASTEWATER RECLAMATION PLANNING LEAD

Matt Noesen is a municipal wastewater engineer focusing on planning and implementation of plans for municipal wastewater utilities in Oregon. Matt has participated in an array of study projects related to tightening regulations for publicly owned treatment works and industry. Areas of technical expertise and experience include implementation of innovative treatment strategies, disinfection, biosolids and resource recovery/energy. Matt also has experience with industrial wastewater treatment including landfill leachate.

Education/Qualifications

M.S., Environmental Engineering, University of California at Berkeley

B.S., Electrical Engineering, Carnegie-Mellon University

Certifications/Training

✓ Professional Engineer: Oregon (No. 18184PE)

Years of Experience

30

Relevant Project Experience

UV Disinfection System Upgrades; City of McMinnville, OR: *Senior Technology Consultant.* Performed the alternatives evaluation for upgrading the disinfection system and design of the selected UV disinfection system upgrade (including preselecting the UV system supplier). Also advised during construction and commissioning phases.

Tri-City Water Pollution Control Plant (WPCP) Advanced Facility Plan; Clackamas WES; Clackamas County, OR: *Assistant Project Manager.* Led the development of an Advanced Facility Plan that outlined the "Forest in the Floodplain" concept for the Tri-City WPCP. The 20-year expansion plan called for tripling the size of the Tri-City WPCP while reestablishing the natural landscape at the site. The plan included a benchmark example for innovative stormwater handling such as green roofs/streets and constructed wetlands/swales. Another key component of the plan included transforming an abandoned landfill area to ballfields and providing the public with open space and riverfront access. This project received an American Academy of Environmental Engineers Excellence in Environmental Engineering Award in the Planning Category in 2003.

WWTP Master Plan Update including Digester Grease/Food Waste Injection System Feasibility Study; City of Gresham, OR: *Project Manager.* Led the Master Plan Update to identify studies and capital projects to address evolving regulatory requirements and/or further develop energy/resource recovery. Key tasks included developing a liquids treatment plan that has the flexibility to adapt to a variety of potential ammonia nitrogen regulatory scenarios, evaluating alternatives to allow the City to defer construction of a third anaerobic digester, investigating Class A biosolids options, and assessing options for using excess biogas.

Tryon Creek Wastewater Treatment Plant (WWTP) Facilities Plan; City of Portland, OR: *Advisor.* Advised the team for this project which provided the City of Portland with a comprehensive update for the wastewater systems (conveyance and treatment). Project activities consisted of developing planning criteria (including an exhaustive review of Willamette River water quality regulations), screening and evaluating alternatives and development of a flexible long- term 30- year plan that would accommodate both wastewater and community development needs.

Facilities Plan Update; MWMC; Eugene/Springfield, OR: *Project Manager.* Managed the 2014 update to MWMC's 2005 Comprehensive Facility Plan. Utilized a staff augmentation/ workshop-driven approach to update flows and loads while accounting for growth variability, review future regulations, update the wet weather flow management strategy, develop a capacity, management, operation, and maintenance (CMOM) program, and assess unit process capacity/performance so that the CIP phasing could be revised as

necessary. Conducted capacity assessment using a process model including a focused effort on anaerobic digestion to refine when a fourth digester would need to be placed online. The consultant team and MWMC collaborated to develop an extensive triple bottom line model for evaluating the highest and best use for biogas. Options evaluated included cogeneration, sale of the gas to third party, and generation of compressed gas for vehicle fuel. Advised MWMC in conducting a fats, oil, and grease (FOG)/high strength waste for co- digestion market study and conducted a mixing zone study update as part of this effort. Jacobs conducted a mixing zone study update complying with DEQ's Internal Management Directive guidelines and a Willamette River reasonable potential analysis for temperature/thermal loads as part of this effort. Jacobs was recently selected by MWMC to provide on-call planning and engineering services for MWMC for 2021 through 2026. Matt will serve as Process and Facility Planning Lead on the Jacobs' team.

Facilities Plan Implementation; MWMC; Eugene/ Springfield, OR: *Project Manager/Consultant Advisor.* Provided on-call assistance from to MWMC to assist with implementation of the overall $200 million capital program through 2006-2009. Activities included reviewing and responding to proposals that provide alternative approaches to the 2004 MWMC Facilities Plan recommendations, assisting with aggregating and coordination efforts being performed by the various designers and contractors.

Facilities Plan and System Development Charge Methodology Update; MWMC; Eugene/Springfield, OR: *Project Manager.* Led the 2003-2004 effort to develop a Comprehensive Facilities Plan to provide wastewater services through the next 20 years including a revised system development charge (SDC) methodology. Highlights of the plan included Oregon Department of Environmental Quality approval to proceed with an innovative approach to addressing peak wet weather flows by operating the primary and secondary unit processes in parallel, selecting projects that maximize the use of existing facilities to reduce capital investment, and developing effluent reuse to address multiple water quality and community benefits including addressing Willamette River temperature issues. Assisted MWMC with an extensive public engagement process to gain endorsement from stakeholders for the resulting $200 million CIP and associated SDC methodology.

Facilities Plan Update, Preliminary Design, and Design; City of Bend, OR: *Senior Technology Consultant.* Advised preliminary design team with assessing multiple options for upgrading the existing gaseous chlorine system for two flow streams – secondary effluent that is discharged to percolation ponds and filtered secondary effluent that is reused on a nearby golf course. Alternatives that were evaluated included sodium hypochlorite (both delivered and generated onsite), medium pressure UV, and LPHO UV. The City selected and retained Jacobs (formerly CH2M Hill) to design a LPHO UV system that is used for both disinfection secondary effluent as well as the portion of the flow that is filtered for reuse.

Hartford WPCF Master Plan and UV Design; The Metropolitan District; Hartford, CT. *Senior Technology Consultant.* Served as the senior technology consultant for this project. Initially, as part of the overall master planning effort, led the effort to evaluate several options for replacing chlorine gas including UV, sodium hypochlorite, and peracetic acid. A dual approach of disinfecting base flows with UV and peak flows with sodium hypochlorite was selected by the utility. Jacobs was retained to provide design, construction management, and commissioning of a new 120-mgd UV disinfection system. A formal preselection process was conducted to identify the UV supplier. Jacobs then developed contract documents based on the selected vendor's equipment. Also assisted the CH2M team during construction and commissioning, including operator training and startup assistance.

WWTP Process Modeling and Industrial Sewer Rate Analysis; City of Maryville, TN: *QA/QC Engineer.* Assessed the capacity of the existing WWTP so that the remaining available capacity for growth could be quantified. Based on the results of that capacity assessment, surcharge rates for prospective industrial dischargers were developed.

Shad Roundy, PE

COLLECTION SYSTEM PLANNING LEAD

Shad Roundy has more than 19 years of experience in collection system master planning and design. His expertise includes hydrologic and hydraulic analysis, system planning, modeling, and optimization. He has extensive experience developing alternatives analysis and optimizing system operations including large and small pipelines and storage/ conveyance tunnels, pump stations, and diversion structures. Several of his projects have evaluated alternatives across wastewater conveyance, treatment, and outfall infrastructure. Shad's experience includes modeling and analysis work for multiple agencies and municipalities in Oregon and Washington. He recently delivered capacity analyses and urban growth boundary evaluations for the City of McMinnville and has been supporting the City's on-call collection system modeling requests since 2019.

Education/Qualifications

M.S., Civil and Environmental Engineering, Brigham Young University

B.S., Civil and Environmental Engineering, Brigham Young University

Certifications/Training

✓ Professional Engineer: Oregon (No. 81510PE); Washington (No. 57967); Idaho (No. P-12774)

Years of Experience

19

Relevant Project Experience

Hydraulic Modeling, Urban Growth Expansion Study; City of McMinnville, OR: *Technical Lead.* Led a team to evaluate impact of urban growth expansion in targeted areas around the City of McMinnville and associated requirements to expand water, sewer, storm, and transportation infrastructure. The analysis evaluated and scored the impact of growth areas for each utility or infrastructure system. Shad also supports on-call collection system modeling requests from the City.

Hydraulic Modeling, Planning, Water Quality Analysis, and Design; Various Projects; CWS; Washington County, OR: *Project Engineer, Project Manager, and Task Lead.* Responsibilities encompass supporting collection system hydraulic modeling for the District since 2012, including model development and calibration in four treatment basins, basin-specific design storm development, capital improvement alternatives and phasing evaluations, and capital improvement optimization analysis. Recently led the update to the Collection System Master Plan for the Durham Basin, which considered major improvements to alleviate capacity constraints in the Fanno Creek Interceptor. Alternatives analysis included options for pipeline improvements up to 72-inches, wet weather pumping, infiltration and inflow reduction, pipeline rehabilitation, and wet weather storage. In 2016 he was the lead hydraulic modeler and planner for the Upper Tualatin Interceptor Study, which resulted in design and construction of two major pump stations and two major interceptors. Currently, he is leading collection system and planning work in the District's West Basin.

Sanitary Sewer Collection System Master Plan Update; Clackamas WES; Clackamas County, OR: *Project Engineer and Task Lead.* Led efforts to develop and calibrate the District hydraulic models and evaluate a design storm for capital improvement planning. Shad's team developed an innovative cost-effectiveness model which evaluated a combination of wastewater treatment, I&I reduction, and conveyance and pumping improvements to optimize a system-wide capital improvement program. The optimization considered pump station and conveyance improvement timing, target dates for wet weather reduction, and flow impacts to the treatment facilities. Shad built a dashboard for WES staff to monitor and evaluate flow triggers to adjust timing of capital projects on an annual basis. Once the master plan was complete, he led efforts to perform feasibility analysis and develop concept designs for the Clackamas Interceptor and Intertie 2 Pump Station. The Clackamas Interceptor concept design included hydraulic analysis and routing evaluation

for several miles of 30- to 54-inch piping with trenchless crossings of creeks, railroads, and highways. The Intertie 2 Pump Station concept design included a major diversion structure, pump station (30-40 mgd), and parallel 20- and 30- inch forcemains.

Hydraulic Modeling, Planning, and Design, Various Projects; City of Bend, OR: *Project Engineer and Task Lead.* Has been involved in collection system modeling, planning, and design work with City of Bend since 2007. Examples of project experience with the City include the optimized Collection System Master Plan (2014), the optimized Urban Growth Expansion Study (wastewater and water, 2016), Collection System Improvement Phasing Study (2018), on-call hydraulic analysis and modeling (2016 - 2020), Southeast Interceptor Design (2012-2013), and Drake Lift Station design (2019). For the optimized collection system master plan, Shad's team programmed a tool for evaluating operations of pump groups with common forcemains (over 50 pump stations evaluated).

Hydraulic Modeling and Pipeline Design Support, Various Projects; City of Portland BES; Portland, OR: *Project Manager and Task Lead.* Project manager for on-call modeling support services. Technical analysis and modeling of small and large diameter rehabilitation projects including flow development, improvement sizing, and vortex drop shaft alternatives. Performed gradually varied flow modeling of combined sewer overflow tunnel.

Wastewater Collection System Planning and Wastewater Treatment Plant Hydraulics; City of Twin Falls, ID: *Project Engineer.* Responsible for capital improvement planning, siphon hydraulic analysis, improvement alternatives evaluations, hydraulic modeling, and treatment plant hydraulic evaluation.

Wastewater Facility Plan Update; City of Sandy, OR: *Technical Lead.* Integrated collection system and wastewater facility plan. Performed cost effectiveness analysis across conveyance, pumping, I&I reduction, treatment, land application, and discharge. Responsible for alternatives evaluation and cost analysis of effluent infrastructure including second outfall.

Wastewater Collection System and Stormwater Master Plan Updates; City of Sherwood, OR: *Project Manager and Technical Lead.* Responsible for collection system and stormwater master planning and hydrologic and hydraulic modeling. Also responsible for capital improvement program development and documentation.

Wastewater Collection System Master Planning; City of Wilsonville, OR: *Technical Lead.* Responsible for hydraulic modeling, master planning, concept area planning, pump station design support, preliminary gravity sewer design, and alternatives analysis.

Hydraulic Modeling and Improvement Alternatives; City of Corvallis, OR: *Project Engineer.* In 2011 evaluated pipeline improvement alternatives and performed hydraulic modeling.

Collection System Master Plan; City of Gladstone, OR: *Project Manager and Technical Lead.* Responsible for hydraulic modeling, I&I reduction program, repair and replacement program recommendations, master planning, and capital improvement programming.

Wastewater Collection System Planning and Design Support; City of Albany, OR: *Technical Lead.* Capital improvement program development and hydraulic modeling. Siphon improvement evaluation and preliminary design.

Wetland Treatment System Design; City of Woodburn, OR: *Task Lead.* Hydrologic and hydraulic evaluations and storage routing. Design of wetland treatment site including inlet/outlet structures, diversion controls structures, culverts, pipelines, parshall flume, and connection to treatment outfall.

Hydraulic Design and Modeling, Las Vegas, NV: *Project Engineer.* Treatment plant hydraulics and diversion chamber evaluation, computational fluid dynamic modeling and hydraulic design support.

Wetland Treatment System Design, Talking Water Gardens; City of Albany, OR: *Task Lead.* Hydrologic and hydraulic evaluations including design storm analysis, retention time analysis, storage routing, constituent load modeling, and wet weather flow estimation. Design of wetland treatment site including inverted siphons, inlet/outlet structures, diversion controls structures, culverts, pipelines, outlet creek, and connection to treatment outfall.

Wastewater Collection System Concept Planning; City of King City, OR: *Task Lead.* Concept planning, pump station and gravity conveyance alternatives evaluation.

David Wilson

REGULATORY LEAD

Education/Qualifications

M.S., Marine Sciences, Oregon State University

B.S., Marine Sciences & Aquatic Biology, Oregon State University

Years of Experience

35

Dave Wilson is a senior scientist who specializes in environmental analysis for wastewater dischargers, with a specialty in NPDES permit negotiation and water quality compliance issues. His skills include discharge compliance evaluations, regulatory strategy, agency negotiations, study design and implementation of field data collections, modeling analyses, knowledge of aquatic communities, and project management. In addition, he has designed and led more than thirty outfall mixing studies as well as more than a dozen outfall design improvement projects in Oregon, bringing expertise in the design development of high-performance diffusers and outfall improvements in rivers, estuaries, and coastal waters. He has directed diffuser design developments that include analysis of target design dilutions for existing and projected wastewater discharger flows and effluent chemistry, bedform stability analyses, dilution and hydraulic modeling to optimize diffuser performance, assessments of diffuser damage and burial risks. Dave has designed and directed more than 50 field tracer performance studies and modeling analyses of municipal and industrial waste dischargers to evaluate existing discharges, modified diffusers, and new diffusers. His expertise includes diffuser designs, design of modeling analyses, regulatory strategy development, agency negotiations, study design and implementation of field data collections, statistical analysis, knowledge of aquatic communities, and project management.

Relevant Project Experience

Outfall Mixing Zone Study; City of McMinnville, OR: *Technical Lead*. Conducted a field and modeling mixing zone study of the McMinnville WRF discharge into the South Yamhill River in 2008 in preparation for the NPDES permit renewal. The study was developed and completed prior to the publication of the DEQ's Regulatory Mixing Zone – Internal Management Directive (RMZ-IMD), however, the collected data were sufficient to meet the RMZ-IMD requirements. This work included outfall inspections, field dilution measurements, discharge flow modeling to represent season river flows and stages, dilution modeling, environmental mapping, and reporting. In 2011, an addendum report was prepared after Yamhill River flow measurements were corrected higher by USGS, which resulted in increased dilutions for the WRF discharge to the river.

NPDES Permit Review and Negotiation Support for Dischargers; Multiple Agencies; OR/WA: *Technical Lead.* Led reviews of Applicant Draft and Public Draft NPDES Permits for various municipal and industrial dischargers in Oregon and Washington. Support has included supporting direct negotiations with Oregon DEQ and Ecology. Provided these services for the Cities of **McMinnville**, Wilsonville, Coos Bay, Ashland, **Gresham**, Portland (Columbia Boulevard WTP and Tryon Creek WTP), Corvallis, Dallas, Seaside, and Vancouver, as well as for the Oak Lodge Sanitation District, MWMC, **Clackamas WES**, Discovery Clean Water Alliance and many other municipal agencies. Industrial clients for NPDES support have included Weyerhaeuser, International Paper, Dyno Nobel – St Helens, Siltronics, Troutdale Energy Center, Oregon LNG, Nippon Paper, Cosmo Fibers, and Pacific Seafoods. NPDES reviews include detailed reviews of effluent chemistry data and receiving water data, evaluating RPAs developed by agencies, developing detailed technical review comments,

and proposed compliance schedules to avoid imposition of water quality-based effluent limits.

Water Quality Regulatory Evaluations for Facilities Planning; Multiple Agencies; Oregon and Washington: *Technical Lead.* Served as task lead for water quality evaluations for facility and sewer planning for the Cities of **McMinnville**, **Gresham**, Portland, Coos Bay, Ashland, Centralia, Corvallis and Vancouver, and for many other municipal agencies including MWMC, **Clackamas WES**, and Discovery Clean Water Alliance. Regulatory evaluations include detailed reviews of effluent chemistry data and water quality limitations (i.e. TMDLs and 303d listings), developing water quality compliance strategies, projecting state and federal water quality regulation constraints, and interpreting changes to state water quality standards and assessment tools. Recent outstanding projects include: 1) Gresham WWTP Master Plan Update [2017]; 2) Tryon Creek WWTP Facility Plan, Portland BES [2014]; 3) Coos Bay Sewage Treatment Plant #1 Facility Plan Amendment [2019]; and 4) Eugene-Springfield Water Pollution Control Facility Plan, MWMC [2014]. Other notable regulatory and water quality evaluations for facility and sewer plans include Vancouver (Marine Park and Westside WRFs) and Coos Bay STP #2.

NPDES Permitting Support, Water Quality Evaluations and Outfall Mixing Studies; City of Corvallis, OR: *Technical Lead.* Provided NPDES permitting support and water quality compliance evaluations for the City in 1997, 2007, 2015, and 2020. Provided technical support for the design development of the wet weather outfall diffuser and led all elements of the Outfall Mixing Zone Study.

Kellogg Creek WPCP Outfall Improvement Design Project; Clackamas County WES; Oregon City, OR: *Technical Lead.* Led outfall improvements design, dilution modeling, water quality compliance evaluations, and field studies of this outfall in the Willamette River. Design developed to meet water quality standards in the Willamette River based on projected maximum effluent ammonia discharge values. An extended outfall with new 7 port diffuser was selected to meet dilution requirements. The Engineering Design report was submitted to DEQ in February 2015, outfall construction was completed in October 2016. Dave directed a field and modeling outfall mixing study of the new outfall diffuser in September 2017.

Wilsonville WWTP Outfall Improvement Project; City of Wilsonville; Wilsonville, OR: *Technical Lead.* Led development of outfall improvement options, diffuser design, dilution modeling, water quality compliance assessment, and field studies in the Willamette River. Developed six outfall options. Extended 42- inch steel outfall with new five port diffuser was selected as the preferred design to meet dilution requirements (with safety factor). Engineering Design Report submitted in August 2016; permits approved in 2017; and construction was completed in August 2018. Dave planned and directed an outfall mixing study of the new outfall and diffuser in September 2018.

Tri-City WRRF Outfall Remediation Project and Outfall Replacement Project; Clackamas County WES; Oregon City, OR: *Diffuser Lead.* Led development of diffuser improvements to Tri City WRRF outfall (Willamette River) to comply with ammonia criteria in Oregon water quality standards. This time-critical project (conducted to meet a DEQ MAO), evaluated improvements to existing three-port outfall diffuser, along with new outfall and diffuser options The District selected a combination of diffuser port modification, dry season flow control into the modified outfall, and ammonia treatment. Engineering documents and construction were completed within the MAO timeline in 2012, and effluent ammonia limits were eliminated from the Tri- City WRRF permit. In 2018, WES initiated the Tri- City WRRF Outfall Replacement Project to install a new 90" outfall and river diffuser to discharge all flows up to 25-year flood conditions, when excess flows would discharge via the existing 3- port outfall. Dave is leading river studies, water quality evaluations and diffuser design.

Salmon Creek Wastewater Treatment Plant (WWTP) Diffuser Design; Clark Regional Wastewater District (CRWWD); Clark County, WA: *Technical Lead.* Provided technical support to the CRWWD for nearly 30 years. Design and directing field data collections, modeling, outfall mixing studies, and technical exchanges with Washington Ecology. Dave has assisted the CRWWD with NPDES permit issues for over 25 years. Recently, Dave served as technical lead for diffuser design for the replacement river outfall.

Education/Qualifications

M.E., Civil Engineering (Wastewater Treatment), University of Idaho

B.S., Civil Engineering, University of Idaho

Certifications/Training

- ✓ Professional Engineer: Washington (No. 45464); Idaho (No. 9414)

Years of Experience

26

William (Bill) Leaf, PE

LIQUID TREATMENT LEAD

Bill Leaf is a principal technologist specializing in wastewater reclamation. He has extensive experience in the planning, design, construction, and startup of wastewater treatment facilities and has been involved in studies in the areas of permit negotiation, water quality issues, pretreatment, and user charge systems. Bill has worked on both public and private sector projects in the northwest United States, as well as national and international projects.

Relevant Project Experience

McMinnville WRF Tertiary Expansion and UV System Upgrades; McMinnville, OR: *Senior Technologist.* Provided guidance on evaluation of the tertiary treatment system and associated improvements required to maintain the high level of total phosphorus removal at the facility. This included development of a whole-plant process simulation for the facility, helping identify the interactions between unit processes specific to total phosphorus management.

McMinnville WRF Secondary Expansion; McMinnville, OR: *Senior Technologist.* Assisted with initial review of treatment technologies for possible use for expansion of the City's WRF. Once the decision was made to expand the facility with a bioreactor (oxidation ditch) to match the existing system, provided a level of senior review throughout the project, including QA/QC on the design documents prepared as part of the project.

Corvallis Whole-Plant Modeling; City of Corvallis, OR: *Senior Reviewer/QA-QC.* Provided senior review and quality control of the whole-plant process simulation developed for the Corvallis WWRP. The modeling work in part determined that the loads to the plant are approaching 75% of the average day, maximum month capacity of the plant. This modeling work helped identify limitations at the current facility and recommended expansion options.

Water Restoration Plant Improvements; City of Grants Pass, OR: *Senior Technology Consultant.* Providing the overall process concepts and approach for the improvement project. This project was completed under a progressive design-build delivery model. The improvements involve expansion of the primary treatment system, secondary treatment process, and upgrade to ancillary systems. Bill participated in the startup and commissioning phase of the project, working to develop strategies to bring the new aeration basin into operation. He was the on-site process engineer during the startup of this new bioreactor and associated processes. He also provided process training for operations staff during the startup and commissioning phase, helping identify the new features and concepts available with the new secondary treatment process.

Nampa Wastewater Treatment Plant Phase 1 Upgrades; City of Nampa, ID: *Senior Technology Consultant.* Senior technology consultant for the Jacobs team completing the Phase 1 Upgrades design. This design incorporates improvements to the facility which allow the City to meet initial total phosphorus effluent requirements. The project involves infrastructure modifications to their existing primary treatment and trickling filter systems, modification of the existing aeration basins to provide enhanced biological phosphorus removal (EPBR), and installation of a new EBPR configured aeration basin. Currently, Bill is the senior technology consultant for the Progressive Design-Build project

for the Group F expansion of the Nampa WWTP. The work commenced in August 2020. The expansion of the WWTP includes an additional EBPR aeration basin, blower facility, secondary clarifier, tertiary filtration, UV disinfection, nutrient recovery (struvite sequestration), and solids handling improvements.

Lighthouse Point Water Reclamation Facility Plan; City of Blaine, WA. *Lead Process Engineer.* Led the process engineering for the planning and analysis of a new treatment facility to serve the City. This involved the evaluation and process simulation of multiple treatment alternatives for the Lighthouse Point facility. Conceptual-level process schematics and layouts were developed for the recommended alternative, a biological membrane treatment system.

Corvallis Regulatory Assistance; City of Corvallis, OR: *Senior Technology Consultant.* Completed a process analysis of the wastewater reclamation plant to determine the capacity of the secondary treatment system. This involved the process simulation of a rock- media trickling filter system followed by solids contact basins. The results allow the City to have a better understanding of the "treatment to maximum extent practicable" listed in their NPDES permit.

Lahaina Wastewater Reclamation Facility (WWRF) Modifications Stage 1A Project; County of Maui, HI: *Senior Technology Consultant.* Assisted with the startup and commissioning of the unit processes. This included assisting as the on-site process engineer during the June 2019 bypass event around the secondary clarifier splitter box. Bill also helped as the onsite process engineer during the December 2019 – January 2020 startup and commissioning of the flexible aeration basin (FAB) and conventional aeration basin (CAB).

Bend Water Reclamation Facility (WRF) Secondary Expansion; City of Bend, OR: *Senior Technology Consultant.* The project included a value planning step followed by a process evaluation phase, where a number of treatment technologies were evaluated for expansion of the existing secondary treatment process. The integrated fixed-film activated sludge (IFAS) process was selected with the City staff for incorporation into the facility. This allows the City to reliably meet their total nitrogen limit of 10 mg/L throughout the year. In addition, the process is designed to provide flexibility for ease of future capacity expansion. Bill developed the concept for incorporation of the IFAS system into the existing bioreactors. He then followed with senior review of the detailed design phase, and is currently working on the optimization of the IFAS system that is being commissioned in the spring of 2021.

Wastewater Utility Plan; City of Boise, ID: *Senior Technology Consultant.* Provided guidance on the technical evaluation of treatment alternatives and process evaluations for the City's wastewater system, as part of the ongoing Wastewater Utility Plan. This includes assessing both the West Boise and Lander Street Water Renewal Facilities. A primary goal for the City is to provide sustainable, cost-effective expansion of their facilities to meet the stringent TMDL requirements while addressing high levels of growth in the service area.

West Boise WWTF TP Removal Project; City of Boise, ID: *Senior Technology Consultant.* Involved in the planning, design, and services during construction for the expansion of the treatment facility to meet total phosphorus limits. The expansion included the conversion of aeration basins to accommodate EBPR, primary sludge fermentation, and nutrient recovery (through intentional struvite precipitation). The planning phase for this project involved the evaluation of biological nutrient removal alternatives, chemical treatment alternatives, and side-stream treatment technologies. As part of the project, a model of an intentional struvite precipitation system was developed and incorporated into the whole-plant process simulator. The project was commissioned in 2015, and Bill has been involved in an extensive optimization effort at the facility, focusing on the key features required for reliable EBPR working together with the nutrient recovery facility.

Riverside Park Water Reclamation Facility (WRF) NLT Related Projects; City of Spokane, WA: *Senior Technology Consultant.* Providing senior review for the Next Level of Treatment (NLT) related projects to continue achieving high levels of total phosphorus removal.

Education/Qualifications

M.S., Environmental Engineering, Marquette University

B.S., Civil/Environmental Engineering, University of Cincinnati

Certifications/Training

- ✓ Professional Engineer: Colorado (No. 20047)
- ✓ Board Certified Environmental Engineer

Years of Experience

40

David Oerke, PE, BCEE

SOLIDS TREATMENT LEAD

Dave Oerke is a nationally recognized wastewater solids processing facility design expert with 40 years of experience managing and coordinating numerous large, successful wastewater treatment plant (WWTP) master plan and evaluation/design projects. Dave is a first-generation and second-generation autothermal thermophilic aerobic digestion (ATAD) process specialist with experience on over 15 ATAD evaluation, design, construction, and value engineering (VE) projects over the last 25 years. He is also active in the industry, serving as Past Chair of the WEFRBC Solids Separation Subcommittee and writing and reviewing chapters on thickening, stabilization and dewatering in the 2015 EPA/WEF WRRF Design Manual and the WEF MOP8.

Relevant Project Experience

WRF Solids Treatment Capacity Improvements; City of McMinnville, OR: *ATAD Technologist.* Jacobs delivered a comprehensive evaluation of the existing solids treatment and biosolids handling processes at the WRF. The recommended project, presently in design, will provide new Class A second-generation ATAD digesters and process with improved performance, a new odor control system, improvements to the Biosolids Storage Tank, and PLC replacement.

McMinnville WRF Biosolids Storage Tank and Grit System Expansion and Related Studies; City of McMinnville, OR: *Senior Technical Consultant and ATAD Technologist.* Helped lead the assessment of the existing ATAD facilities and the evaluation of Class A second-generation ATAD, composting, thermal drying and Class B biosolids management alternatives. Also led the evaluation of Offsite Biosolids End-Use Alternatives that included the current local land application of the liquid Class A biosolids, low-odor liquid product and dewatered product with local land application, and compost and thermally-dried product with direct distribution to consumer. Used detailed present worth cost analysis, non-monetary criteria and total weighted benefit/unit cost criteria and interactive workshops with the client to evaluate, short-list and choose the selected biosolids management alternative.

Thickening and Dewatering Evaluation and Preliminary Design; Columbia Boulevard STEP Treatment Expansion; City of Portland BES; Portland, OR: *Senior Technical Consultant.* Led the evaluation of gravity thickening, gravity belt thickening, rotary drum thickening, and centrifuges for thickening; and led the evaluation of centrifuges and belt filter presses for dewatering using detailed present worth cost analysis and non-monetary criteria for current and future 2045 biosolids production. Recommended the installation of eight GBTs for co-thickening primary/WAS and five centrifuges for dewatering anaerobically digested biosolids. Performed quality control on the design of the thickening, dewatering and cake storage and truck loading facilities.

Dewatering Facility Improvements Study and Design Projects; South Platte Renew; Englewood, CO: *Project Manager.* Managed the condition assessment of existing dewatering facilities including centrifuges, cake pumps, cake storage silos and dry polymer systems to determine service life. Performed a detailed financial and non-monetary evaluation of dewatering facility alternatives with interactive workshops. Design of 3 high pressure cake piston pumps and piping and emulsion polymer systems.

Thickening Equipment Alternatives Analysis and Predesign, Solids Dewatering Optimization Study and Thickening Equipment Design ; City of Gresham, OR: *Senior Technical Specialist.* Led the evaluation of RDT and GBT thickening options for the Gresham WWTP. RDTs were recommended due to lowest life-cycle cost and highest nonmonetary benefit score. Also led the evaluation of using ferric and potassium chloride addition through bench-scale testing to increase BFP cake concentration and reduce overall annual costs. Performing quality control on the design of the RDT thickening improvements.

Parker Water and Sanitation District North Water Reclamation Facility Master Plan and Design Project; City of Parker, CO. *Senior Technical Consultant and Solids Lead:* Solids lead for wastewater facility master plan for an expansion and consolidation of two facilities with a total permitted capacity of 4 mgd. Project elements include plant-wide improvements to headworks, biological nutrient removal basins, rotary drum thickening, and ATAD solids stabilization. Senior technical consultant for QC review of preliminary and final design of thickening, ATAD stabilization, BFP dewatering, cake conveyance, and truck loading facilities.

Wastewater Treatment Master Plan and Aerobic Digester Design; City of Steamboat Springs, CO. *Senior Technical Consultant.* The project included an assessment of the City's WWTP to compile a facility capital improvements plan including assessments of mechanical equipment, HVAC systems, electrical and SCADA systems. Wastewater process modeling was conducted to determine future treatment modifications to meet pending nutrient regulations from CDPHE. Reviewed existing and future sludge production and aerobic digester alternatives. Providing quality control on aerobic digestion final design project.

WWTP Expansion Study; City of Wapakoneta, OH: *Senior Technologist.* Evaluated thickening, solids storage, polymer, dewatering and lime stabilization equipment alternatives to handle increased solids production. Performed quality control on the final design of aerated sludge storage, belt filter press, lime stabilization and truck loading facilities.

Solids Handling Improvements Study, Preliminary/Final Design and Construction; South Fort Collins Sanitation District; Fort Collins, CO: *Project Manager.* Managed the detailed evaluation of existing oxidation ditch and new bioreactor nutrient removal facilities for expansion of the WRF to 6- mgd capacity. Led innovative design approach that resulted in over $4 M of cost savings by retrofitting of existing facilities. The constructed facilities in this $35M expansion include step-feed aeration basins, UV disinfection equipment, aeration blower building, secondary clarifier, rotary drum thickening and polymer equipment, conversion of existing aerobic digesters to ATAD, odor control facilities, sludge pumps, and miscellaneous mechanical and electrical equipment.

Thickening and Dewatering Centrifuge and Auxiliary Equipment; NEW Water; Green Bay, WI: *Senior Technology Specialist and Lead Process Designer.* Led the detailed 2012 evaluation of centrifuges, belt filter presses, and hydraulic piston presses, and the 2013-2014 design of a 1,000-gpm thickening centrifuge, dry polymer storage/feed systems, three 150-gpm dewatering centrifuges, conveyors, scalping thermal rotary dryer, cake pumping and conveyance facilities for this $147 million project for dewatering anaerobically digested biosolids with high dairy waste and FOG content. Prepared technical memos, cost estimates, and design drawings/ specifications for procurement. This sustainable award-winning project will produce 65-85% of the plant power from biogas and heat recovery.

Aerobic Digester and Dewatering Equipment Design; South Truckee Meadows Water Reclamation Facility; Reno, NV: *Senior Technology Specialist.* Detailed evaluation of FKC, Huber and Schwing screw presses for dewatering aerobically digested biosolids. Reviewed drawings and prepared specifications for design of rotary drum thickeners (RDTs) for recuperative and direct thickening, medium solids aerobic digesters and screw presses. Supervised start-up and performance testing of RDTs and screw presses.

Education/Qualifications

M.S., Bioresource Engineering, Oregon State University

B.S., Soil Science, Evergreen State College

Certifications/Training

- ✓ Professional Engineer: Oregon (No. 61438PE)
- ✓ Certified Water Rights Examiner: Oregon (No. 61438CWRE)

Years of Experience

24

Jason Smesrud, PE, CWRE

EFFLUENT REUSE LEAD

Jason Smesrud has 24 years of experience providing technical expertise and leadership for water resources, recycled water irrigation, and natural treatment systems solutions for wastewater utilities. Over this period, he has worked with clients in Oregon, Washington, Idaho, and California developing solutions for temperature compliance including the use of recycled water irrigation, cooling wetlands and ponds, hyporheic discharge, and cooling towers. He has served as project manager, design manager, and senior consultant on numerous projects through the planning, permitting, design, construction, and operations phases in North America, Latin America, and the Middle East.

Relevant Project Experience

Ashland WWTP Outfall Relocation Study, Outfall Mixing Zone Study, and Outfall Preliminary Design; City of Ashland, OR: *Project Manager.* Managed the development of a comprehensive temperature compliance solution for continued WWTP effluent discharge to a small receiving stream. The work included developing a multi- pronged temperature mitigation strategy to address all near-field and far-field temperature requirements and evaluation of multiple outfall relocation options, prioritization of preferred routes and discharge locations based on avoidance of impacts to wetlands, riparian areas, and in-stream spawning habitat. Also managed the preliminary design and environmental permitting of the outfall relocation helping the City to successfully secure local, state, and federal permits and approvals. Several regulatory and stakeholder meetings were facilitated throughout the course of the study to navigate towards a solution that could be permitted and was acceptable to the community.

Woodburn WWTP Natural Treatment Systems Pilot Studies; City of Woodburn, OR: *Project Manager.* Coordinated the efforts of research teams from OSU, WSU, and Jacobs (CH2M) for pilot studies to investigate high-rate irrigation for groundwater recharge, thermal reduction and hyporheic discharge to a river system from a leaky constructed wetland, coppice management of a hybrid poplar tree plantation, and ammonia treatment through a horizontal subsurface flow wetland system.

Woodburn WWTP Poplar Tree Irrigation and Natural Treatment System; City of Woodburn, OR: *Design Manager.* Managed a multi-disciplinary design and permitting team through final design and contract document preparation of a new Pudding River outfall; 25 acres of poplar tree irrigation; 28 acres of constructed wetlands; 10-million-gallon irrigation regulating reservoir; and pumping, conveyance, SCADA, and water control structures to meet discharge limitations for temperature and ammonia. Work involved multi-agency coordination and securing all necessary permits for construction.

Belfair Forestlands Irrigation Reuse Project; Mason County, WA: *Design Manager.* Managed the design of a 90-acre spray irrigation system for reuse of Class A recycled water to irrigate commercial forestlands. Design responsibilities included reservoir sizing; pumping, filtration, and controls preliminary design; coordination of mechanical, structural, electrical, and I&C disciplines; hydraulic modeling; and final design and contract document preparation for all field irrigation systems.

Riverbend Landfill Leachate Irrigation Program; City of McMinnville, OR: *Project Manager.* Coordinated multi-disciplinary teams to deliver the permitting, site characterization, design, construction oversight, and successful commissioning of an innovative 45-acre drip irrigation system and poplar tree farm for beneficial reuse of landfill leachate. This project won the 2002 American Academy of Environmental Engineers Grand National Excellence in Engineering Award.

Hermiston Regional Wastewater System Project Definition Design; City of Hermiston, OR: *Design Manager.* Developed multiple design alternatives to evaluate the potential development of a regional wastewater system. The system is envisioned to serve food processing and data center industry wastewater needs while reusing all water for agricultural irrigation water supply. The project report included project definition designs, cost estimates, and alternative evaluations and a governance evaluation and industrial rate analysis.

Natural Treatment System; Roseburg Urban Sanitary Authority; Roseburg, OR: *Senior Consultant and Design Engineer.* Performed soil investigations to evaluate soil infiltration and drainage characteristics, developed design criteria for sprinkler systems and drainage facilities, and designed the subsurface drainage facilities for high rate irrigation of recycled water over this 340-acre ranch. This natural treatment system removes phosphorous by soil treatment of high-rate irrigation that ultimately recharges groundwater and discharges back to natural wetlands and a stream drainage through hyporheic exchange.

Temperature Compliance Evaluation; City of Boise, ID: *Senior Consultant.* Led the evaluation of effluent cooling opportunities from the use of existing gravel mining ponds and future constructed wetlands around the WWTP. The Heat Source Wetlands model was used to quantify cooling and excess thermal load reduction benefits from both facilities.

South Truckee Meadows Water Reclamation Facility Reuse Expansion Master Plan; Washoe County; Reno, NV: *Senior Consultant.* Led the master planning services for doubling the capacity of reclaimed water storage and distribution facilities from the existing 2,600 ac-ft/yr capacity. Work included documenting existing practices; identifying future connections; facility mapping; reservoir water balance modeling; hydraulic distribution system modeling; reclaimed water quality/suitability assessment; alternatives analysis; and recommending system improvements based on cost/benefit analyses.

Laguna Sanitation District Golf Course Salinity Management Evaluation; Santa Maria, CA. *Senior Consultant.* Led the work to develop salinity management solutions for irrigation of municipal recycled water to a local golf course.

Willamette Partnership Ecosystem Credit Trading Marketplace; Salem, OR: *Senior Consultan.* Developed a thermal credit screening tool to assess thermal credit trading opportunities through wastewater reuse, water rights transactions, and cooling through wetland systems.

Modesto Wastewater Treatment Plant Land Application System Evaluation; City of Modesto, CA: *Senior Consultant.* Led the independent review of land application facilities operations over the 2,500-acre Jennings Ranch to determine whether loading rates of cannery process water could be increased from the current approximately 25-mgd summer-time flow.

Fort Irwin Title 22 Recycled Water Project; Fort Irwin, CA: *Senior Consultant.* Provided senior review and guidance to the project team for an agronomic water use evaluation; reclaimed irrigation water quality assessment; and a vadose zone monitoring plan.

Port of Moses Lake Interim Wastewater Engineering Report; Moses Lake, WA: *Senior Consultan.* Successfully obtained approval from the Washington Department of Ecology to increase the permitted limits for irrigation land application of BOD, COD, and TSS loadings from industrial wastewater.

Talking Waters Gardens Wetland Temperature Treatment Design; City of Albany, OR: *Senior Consultant.* Led the temperature treatment evaluation and thermal basis of design for a 12.3 mgd and 37 ac constructed wetland project implemented to comply with temperature TMDL heat load limits on effluent discharge. Adapted the existing Heat Source finite element stream temperature model to perform explicit energy balances for water flowing through emergent wetland vegetation. The newly developed model was used to evaluate thermal load compliance and to design the constructed wetland for temperature treatment.

Todd Greeley

LIQUIDS PROCESS ENGINEER/PROCESS MODELING

Todd Greeley is a seasoned process modeler with experience conducting process engineering and serving as facility and process lead on a variety of wastewater treatment design projects. He has experience modeling hydraulics of new and existing treatment plants. Todd has laboratory experience in municipal treatment plants and working with the firm's Applied Sciences Laboratory. He has field experience inspecting and assessing distribution and collection systems, as well as managing facility startups.

Education/Qualifications

M.S., Environmental Science in Civil and Environmental Engineering, University of Illinois

B.A., Environmental Analysis, Pomona College

Years of Experience

13

Relevant Project Experience

Corvallis WRP Capital Program; City of Corvallis, OR: *Process Modeler.* Modeled the Corvallis WRP using Pro2D to evaluate optimal treatment process capital improvements for current and projected treatment objectives.

Ashland WWTP Capacity Assessment; City of Ashland, OR: *Process Modeler.* Updated wastewater loading projections and used process modeling to identify limiting unit processes and evaluate plant resiliency.

Dallas WWTF Expansion; City of Dallas, OR: *Facility Lead.* Responsibilities included coordination of design team to meet current requirements and plan for future expansion, for design of a new continuous flow sand filtration process for production of Class A reuse water.

Salmon Creek WWTP Aeration Basin Improvements; Discovery Clean Water Alliance; Vancouver, WA: *Process Lead.* Upgraded aeration basins with new instrumentation, baffles, and improvements to mixed liquor recycle pumping. Completed 30% design of new aeration basin for upcoming expansion project.

San Luis Obispo WRRF Upgrade; City of San Luis Obispo, CA: *Process Lead.* Liquids process lead for upgrade of a 6.1 mgd treatment plant to meet lower limits for nitrate and disinfection byproducts. Facility lead for bioreactor basins to replace trickling filters. Responsibilities included process modeling, reconfiguration of aeration basins to a Modified Ludzack Ettinger (MLE) configuration, and construction sequencing.

North City WRF Aeration Basin Improvements; San Diego Public Utilities; San Diego, CA: *Facility Lead for Aeration Basins.* Upgrade of aeration basins from an MLE to a 4-Stage Bardenpho configuration using new and repurposed structures. Enhancements to meet nitrogen requirements for San Diego's Pure Water program. Responsibilities included aeration basin process mechanical design and interdisciplinary coordination, secondary clarifier review, and maintenance of plant operations during construction.

Aeration Basins, Riverside Park WRF NLT Phase 1; City of Spokane, WA: *Process Mechanical/Facility Lead.* Changed aeration basins to an MLE configuration to reduce supplemental alkalinity requirements. Responsibilities included process mechanical design of new diffused aeration system, mixed liquor recycle pumps, and mixers.

Robindale WWTP Expansion; Brownsville Public Utilities Board; Brownsville, TX: *Startup Coordinator.* Managed the on-site startup for the sequenced expansion of an 18-mgd treatment plant with new headworks, secondary clarifiers, UV disinfection, and modified aeration basins on a design-build project.

Woonsocket Regional Wastewater Treatment Facility Capital Improvements; City of Woonsocket, RI: *Process Engineering.* Assisted in process modeling (Pro2D) for the expansion and upgrade of a conventional wastewater treatment plant to enhance nutrient removal. Schematic design of secondary treatment process using existing tanks.

Kodiak Landfill Lateral Expansion Phase 2 Leachate Treatment Plant Design; Kodiak Island Borough; Kodiak, AK: *Process Lead.* Developed process models (Pro2D and Biowin) for the treatment of landfill leachate. Designed membrane bioreactor system for total nitrogen removal using an MLE configuration.

Inner Doha Resewerage Implementation Strategy, New Doha South Sewage Treatment Works; Ashghal; Doha, Qatar: *Facility Lead.* Facility lead for schematic design of headworks, primary treatment, and disinfection processes on a new 132-mgd water reclamation facility. Selection and layout of band screens, drum screens, vortex grit removal, rectangular clarifiers, and circular contact basins.

Roger Road Wastewater Reclamation Facility Solids Transfer Feasibility Study; Pima County Regional Wastewater Reclamation Department; Marana, AZ: *Process Lead.* Developed process models (Pro2D) for two wastewater treatment plants. Evaluated future plant performance during construction phases under various operational scenarios. Made recommendations for early decommissioning of several treatment processes.

Secondary Treatment; Las Vegas Water Pollution Control Facility; City of Las Vegas, NV: *Process/Facility Lead.* Developed process design model (Pro2D) for new and existing wastewater treatment plant as process lead. Facility lead on biological nutrient removal process, secondary clarifiers, and process air system for 30- mgd expansion. Project taken to 60 percent design.

Secondary Clarification, Water Reclamation Facility; Oak Lodge Sanitary District; Oak Grove, OR: *Facility Lead.* Secondary clarification lead for the final phase of design. Detailed two new 70-foot-diameter clarifiers with Return Activated Sludge wetwell.

Ina Road Wastewater Reclamation Facility; Pima County Regional Wastewater Reclamation Department; Marana, AZ: *Facility Lead/Disinfection and Aqueous Ammonia Storage.* Developed testing protocol for disinfection byproduct formation. Modified existing and new structures for disinfection with free, step, or sequential chlorination. Designed low pressure aqueous ammonia storage and pumping system.

Eugene/Springfield Water Pollution Control Facility (WPCF) Peak Flow Management Improvements; Metropolitan Wastewater Management Commission; Eugene/Springfield, OR: *Facility Lead/Disinfection.* Facility lead for disinfection and peak flow hydraulics on a $13.5 million retrofit. Disinfection included hypochlorite injection, contact basin, and dechlorination with bisulfite. Hydraulic analysis included sizing peak flow processes to match existing plant hydraulics and splitting flow between multiple outfalls.

Enterprise Water Resource Center; Clark County Water Reclamation District; Clark County, NV: *Facility Lead/Primary Treatment.* Treatment process lead for primary treatment and plant hydraulics on a new wastewater plant estimated at $250 million. Work included circular clarifiers with a pump station and liquid polymer system. Hydraulic analyses included main process hydraulics and overflow design.

Brett Reistad, PE

SOLIDS PROCESS ENGINEER

Brett Reistad is a senior process-mechanical engineer with a background in the design of mechanical systems and emphasis in wastewater residuals handling and treatment systems. His experience includes design of anaerobic digesters, biogas treatment and cogeneration systems, and sludge mixing systems; polymer storage, makedown, and feed systems; solids thickening and dewatering systems; biosolids drying systems. Brett also has general mechanical experience in the design and selection of piping systems, valves, and pumping equipment.

Education/Qualifications

B.S., Mechanical Engineering, Oregon State University

Certifications/Training

✓ Professional Engineer: Oregon (No. 54903PE); California (No. M39110)

Years of Experience

20

Relevant Project Experience

Solids Handling Improvements Project; Clackamas Water Environment Services; Clackamas County, OR: *Mechanical Lead/Biogas Treatment and Cogeneration Lead.* Responsible for final design to retrofit existing digester control building with replacement cogeneration engine system and add new facilities, including dual-membrane low pressure biogas holder system; 250 scfm capacity gas treatment system, and hot water heating equipment. The gas cleaning system consisted of hydrogen sulfide removal, gas boosting and moisture removal, and siloxane removal. The cogeneration package included a single 600 kW engine-generator, switchgear, heat recovery equipment, external radiator, and exhaust silencer.

Durham AWWTF Dewatering Centrifuge Replacement Project; Clean Water Services; Tigard, OR: *Centrifuge Lead.* Responsible for performing centrifuge pilot testing and developing technical specifications for centrifuge procurement. Responsible for final design to incorporate owner-procured centrifuges into existing solids facility to replace existing units and add a liquid polymer makedown unit. Assisted with incorporation of Owner procured feed sludge, centrate, and dewatered cake instrumentation.

Durham AWWTF Brown Grease Receiving and Cogeneration Project Gas Cleaning and Cogeneration Facilities; Clean Water Services; Tigard, OR: *Facility Lead.* Responsible for final design of a cogeneration facility including a digester gas cleaning system with capacity of 600 scfm and a cogeneration engine facility with two 850 kW engine generators. The gas cleaning system consisted of hydrogen sulfide removal, gas boosting and moisture removal, and siloxanes removal. The cogeneration package included the engine-generators, switchgear, heat recovery equipment, external radiators, and exhaust silencers. Facility equipment included heat recovery equipment, fresh lubrication oil storage and transfer system, and waste oil transfer and storage system. Facility design focused on operations and maintenance features as well as noise mitigation requirements.

Southeast Plant Biosolids Digestion Facilities Project (BDFP); San Francisco Public Utilities Commission (SFPUC); San Francisco, CA: *Design Manager and Lead.* Responsible for final design of a biosolids dewatering and loadout facility. Building design includes four dewatering belt filter presses, biosolids conveyance storage and loadout system with four silos/two enclosed truck loading bays with in-ground truck scales, filter press feed pumps, dry polymer makedown and feed systems, filtrate and spent washwater return pumping systems, and belt cleaning system. As design manager was responsible for overall layout and design of the facility, including coordinating process and discipline leads.

Digester Complex and Interim Biosolids Facilities, Tres Rios Water Reclamation Facility (WRF); Pima County Regional Wastewater Reclamation Department; Tucson, AZ: *Design Manager.* Responsible for coordinating process and discipline leads, client deliverables, and construction permit applications for the final design of a new digester complex to provide solids handling capacity equivalent to 80 mgd. The $18M project included design and construction phase services. New facilities include two anaerobic digesters and digester control building as well as a temporarily installed gravity belt thickener for biosolids. Digester control building configured to support two future digesters.

Regional Water Quality Control Plant (RWQCP) Sludge Dewatering and Loadout Facility; City of Palo Alto, CA: *Design Manager and Lead.* Responsible for developing final design for a sludge dewatering and loadout facility and associated retrofit of adjacent sludge pumping facilities. Building design includes four dewatering belt filter presses, cake conveyance storage and loadout system with enclosed truck drive-through, dry polymer makedown and feed systems, scum concentrator system, odor control system, and hot water flushing system. Project expanded the plant electrical supply loop, including backup engine generator system. As design manager was responsible for coordinating process and discipline leads, client deliverables, and construction and air permit applications.

Dewatering and Drying Facility, Wilsonville WTP Design-Build-Operate (DBO) Project; City of Wilsonville, OR: *Facility Lead.* Responsible for final design of a solids dewatering and drying facility to process undigested solids from the treatment plant. Process equipment consisted of two skid- mounted dewatering centrifuge package systems, including polymer makedown systems and discharge cake conveyors, and an indirect solids drying package system. Facility equipment included a backup electrical generator and cooling tower system for the drying system.

Thickening Building; Upper Occoquan Service Authority; Centreville, VA: *Facility Lead.* Responsible for final design to retrofit the existing Thickening Building, adding a new equipment mezzanine to support two new thickening centrifuge for waste activated sludge thickening as well as digested sludge recuperative thickening; replacing the existing polymer system with a bulk emulsion polymer storage tank and polymer blend units; and adding new centrifuge feed pumps and thickened sludge pumps.

Rotary Dryer System Project; Upper Occoquan Service Authority; Centreville, VA: *Design Manager and Lead.* Responsible for final design for addition of a rotary dryer system into an existing facility. As rotary dryer system lead was responsible for development of request for proposal and pre- selection documents. Coordinated design review meetings with the selected dryer system vendor and finalized procurement contract scope. Final design included building retrofits and installation of the pre-selected rotary dryer system equipment. As design manager was responsible for coordinating process and discipline leads, client deliverables, and construction and air permit applications.

Education/Qualifications

B.S. Mechanical Engineering, California Maritime Academy State College, Vallejo, CA

B.S. Marine Engineering Technology, California Maritime Academy State College, Vallejo, CA

Certifications/Training

- ✓ USCG Licensed Third Assistant Engineer
- ✓ 40-hour HAZWOPER Certified
- ✓ ASME Section V Qualified Inspector
- ✓ SNT Level II and III Inspector and Trainer
- ✓ Owner QA Inspector / Representative

Years of Experience

30

Kurt Lind

CONDITION ASSESSMENT LEAD

Kurt Lind has over 30 years of process engineering and operations management experience with industrial, semiconductor, and biotech facilities, including advanced chemical and wastewater treatment plant design, commissioning and O&M assignments. His expertise includes multi-site management, plant process asset and safety evaluation, directing operations and maintenance, and implementing process optimization. Kurt brings specialized engineering expertise in automation controls and practical plant design, with focus towards work environment safety and design optimization.

Relevant Project Experience

Jacobs; Western United States: *Field Manager/Process Consultant.* Kurt is a Field Manager for our Western United States O&M sites. His focus is on Asset Management, Plant Maintenance Best Practices, and Process Consulting for municipal and utility water/wastewater, industrial, advanced water, and chemical treatment facilities. He supports more than 40 sites in our western region with both internal and external company staff and private clients. He joined Jacobs in 2007 as a site project manager, where he managed operations and maintenance for a combined cycle power plant Zero Liquid Discharge (ZLD) industrial water treatment facility. He has also been an O&M multi-site area manager and process consultant throughout California. As a key member of our Advanced Water and Thermal Process consulting group, Kurt has a very diverse background in operational and process engineering fields such as marine transportation, groundwater remediation, chemical, semiconductor, biopharmaceutical, aerospace production, and flood control.

WWTP and WTP Equipment Condition Assessment Projects:

- **WWTP Asset Management, Maintenance Strategies, and Condition Assessments; City of Gresham, OR:** *Condition Assessment Lead.* 300 assets. WWTP and lift station equipment with maintenance repair / replacement (MRR).
- **Water Treatment Plant Asset Condition Assessments; Seattle Public Utility; Seattle, WA:** *Condition Assessment/Alternatives Evaluation Lead.* 350 assets. Lake intake pump facility, liquid oxygen and ozone systems, gaseous chlorine, clearwells, flow control stations, emergency generator systems, various building/tank/pier structures and chemical adjust systems.
- **Condition Assessment and Capital Improvement Planning; Xcel Energy Chiller Systems; Denver, CO:** *Condition Assessment Lead.* – 200 assets. Central utility plant and government facilities chiller systems for MRR.
- **WWTP Condition Assessment; City of Wenatchee, WA:** *Condition Assessment Lead.* – 160 assets. WWTP including secondary clarifiers.
- **Water Systems Condition Assessment and Capital Improvement Planning; City of Brookings, OR:** *Condition Assessment Lead.* – 1000 assets. WWTP, WW lift stations, WT plant, WT intake and water distribution systems.
- **Cedar WT Plant Condition Assessment; City of Renton, WA:** *Condition Assessment Lead.* – 400 assets. WT plant equipment (chlorine gas, UV, ozone, clarification).

- **WWTP Maintenance Strategies and Condition Assessments; City of Clovis, CA:** *Condition Assessment Lead.* – 150 assets. WWTP plant process equipment assessments for MRR.
- **Condition Assessment; Walnut Energy Power Plant; Turlock, CA:** *Condition Assessment Lead.* – 1000 assets. Industrial wastewater / water treatment AWT and forced evaporation ZLD plant assessments for MRR and optimization.
- **Combined Cycle Power Plant Safety Condition Assessment; PG&E; Maxwell, CA:** *Condition Assessment Lead.*– 150 assets. ZLD WT process safety condition assessments.
- **Tracy Biomass Powerplant Safety Condition Assessments; Tracy, CA:** *Condition Assessment Lead.*– 150 assets. ZLD WT process safety condition assessments.

Walnut Energy Center Zero Liquid Discharge Facility; Turlock Irrigation District; Turlock, CA: *Project Manager.* Kurt manages full-time operations for the Turlock Irrigation District's Walnut Energy Center Zero Liquid Discharge facility. He oversees and supports seven full-time employees, who perform efficient plant operations and maintenance of filtered water, chemical, and crystallizer forced-evaporation plant systems. Kurt coordinates and directs all plant maintenance, operating procedures, plant upgrades, shutdown maintenance, and instrumentation use. He performs all administrative support duties, including budgeting, finance, purchasing, payroll, procurement, and subcontracting.

AWT and Process Plant Equipment Installation and Commissioning:*

- **ASME B31.1/.3/.9 Code** - *Owner's Quality Assurance Representative/Inspector.* QA and inspection for field installed gas, chemical, process, waste treatment equipment systems:
  - LSI Logic Inc and Fujitsu Semiconductor
  - Triquint Semiconductor
  - Hyundai Semiconductor
  - Hitachi Semiconductor and Silicon Foundry
  - Panasonic - Flat Panel Display Facilities
  - Advanced Semiconductor Materials Inc. – silicon refinement and silane gas production / furnacing
- **Installation and Commissioning** - *Owner's Quality Assurance Representative/Inspector.* Advanced specialty and cryogenic bulk gas/chemical systems, purifiers, gas cabinets, pumps, instrumentation, controls automation, safety and emergency response systems:
  - NEC Semiconductor (Roseville, CA) – also performed O&M for industrial waste and ultrapure water
  - AMD Semiconductor (Sunnyvale, CA)
  - LAM Research (Fremont, CA)
  - Hewlett Packard (San Jose and Santa Rosa, CA)
- **Multi-Facility Consulting, Construction, Installation, and Commissioning** - *Owner's Quality Assurance Representative/Inspector.* Water, chemical, and gas process systems, industrial water / wastewater filtration, fab production processes, central utility plants:
  - Intel / Micron Corporation (CA, OR, CO, UT)

FDA Inspection and Commissioning for Biopharmaceutical Facility Processes: Various Clients; Various Locations:* *Project Manager.*

- Installation and commissioning of process chemical and purified water systems used for biopharmaceutical production (process fermentation, sterilization, steam production equipment)
  - Ciba Geigy - Chiron Therapeutics (Vacaville, CA)
  - AbbVie - Allergan Bulk Botox Plant (Campbell, CA)
  - Genentech (San Francisco, CA)

SIEMENS Corporation/ US Filter; Roseville, CA:* *Plant Supervisor.* Kurt was responsible for managing and directing daily Ultra-Pure Water (UPW) and Industrial WWT (IWWT) plant operations at a large-scale semiconductor plant. He supervised 17 technicians responsible for 24/7 plant maintenance and continuous operations. Similar to JACOBS as a Project Manager, he coordinated and directed all plant maintenance, developed and implemented ISO certified operating procedures, introduced and implemented plant upgrades, planned and performed strategic shutdown maintenance, and optimized instrumentation used for troubleshooting and automation reliability.

*Work performed at other firms

Sven MacAller, PE

MODELING & OPTIMIZATION

Sven MacAller is an experienced civil and environmental engineer specializing in modeling and optimization of wastewater, stormwater and water systems. His focus has been on hydraulic model development and calibration, alternatives analysis, and detailed hydraulic analysis in support of master planning and capital program development. Sven is highly skilled in the development and programming of custom tools for tracking system capacity, evaluating pump station operations, capital project phasing analyses, and system optimization. His tools have also delivered valuable I&I reduction cost effectiveness analyses.

Education/Qualifications

M.S., Environmental Engineering, Urban Water Resources Specialization, Technical University of Denmark, Kgs. Lyngby Denmark

B.S., Civil and Environmental Engineering, Colorado State University

Certifications/Training

✓ Professional Engineer: Oregon (No. 93400PE)

Years of Experience

7

Relevant Project Experience

Collection System Modeling On-Call Support; City of McMinnville, OR: *Project Engineer.* Collection system modeling, calibration, capacity mapping, and development analysis including I&I analysis.

Hydraulic Modeling, Planning, and Design Projects; Clean Water Services; Various Locations, OR: *Project Engineer.* Hydraulic modeling and calibration, Upper Tualatin Interceptor alternatives and master plan amendment, pipeline and pump station preliminary design, detailed hydraulic analysis and control strategy development for diversion structures, energy reduction analysis for Rock Creek influent pump station.

Sanitary Sewer Collection System Master Plan Update; Clackamas WES; Clackamas County, OR: *Project Engineer.* Hydraulic model development and calibration including precipitation analysis and flow-based design storm development. Tool development for I&I reduction cost effectiveness analysis, optimization and prioritization of capital improvement projects. Alternatives evaluation and I&I flow tracking.

Hydraulic Modeling and Pipeline Design Support, Various Projects; City of Portland, Bureau of Environmental Services; Portland, OR: *Project Engineer.* Project engineer for on-call modeling support services. Modeling and development of tools for analysis of small and large diameter rehabilitation projects.

Hydraulic Modeling, Planning, and Design, Various Projects; City of Bend, OR: *Project Engineer.* Optimized Collection System Master Plan, Urban Growth Expansion Study, Collection System Improvement Phasing Study and development review. Modeling, alternatives analysis and preliminary design for gravity and pump station projects. Development and programming for custom tools for tracking system capacity, evaluating pump station operations, capital project phasing analysis, and system optimization.

Sanitary Sewer Collection System Master Plan Update; City of Sherwood, OR: *Project Engineer.* Collection system master planning, hydrologic and hydraulic modeling, model calibration, flow development, capacity deficiencies and improvement evaluation, capital improvement program development.

Collection System Modeling and Design; City of Albany, OR: *Project Engineer.* Hydraulic modeling and siphon improvement evaluation and design.

Collection System Energy Generation Analysis; City of Gresham, OR: *Project Engineer.* Energy generation analysis, collection system model development, and calibration.

Tualatin Valley Irrigation District, Clean Water Services; Tualatin Valley, OR: *Project Engineer.* Comprehensive hydraulic model development, demand development, operational analysis, and flow augmentation study for Clean Water Services to supplement water to the Tualatin River.

Technical University of Denmark and HOFOR (Greater Copenhagen Utility); Copenhagen, Denmark: *Student Intern and Project Engineer.* Planning and modeling related to Copenhagen Climate Adaptation Plan. Model development and model review for various sewer basins in Copenhagen including implementation of complex, real-time and passive controls. Performed 2D surface water modeling for the Skt. Kjaeld Neighborhood in Copenhagen to evaluate stormwater management.

Thomas Walsh, PhD

MODELING & OPTIMIZATION

Thomas Walsh has experience in the modeling, planning, analysis, and design of water, sanitary, and stormwater projects. He works out of Jacobs' Portland, OR office. He earned his doctorate from the University of Utah where he applied remote sensing analysis, hydraulic/hydrologic modeling, and ecological principles into the analysis and design of watershed-scale, sustainable stormwater management practices. Thomas' experience spans projects in Washington, Oregon, and Idaho, including pump selection, control valve selection and sizing, capital improvements prioritization and selection, LIDA selection, design, and analysis, and master planning efforts for stormwater, water, and sanitary projects.

Education/Qualifications

Ph.D., Civil and Environmental Engineering, University of Utah

M.S., Civil and Environmental Engineering, University of Utah

B.S., Environmental Engineering, Colorado State University

Certifications/Training

- ✓ PNCWA Stormwater Committee, Member (2018-Present)
- ✓ APWA Sustainability Committee, Member (2019-Present)

Years of Experience

8

Relevant Project Experience

Hydraulic Modeling, Urban Growth Expansion Study; City of McMinnville, OR: *Project Engineer.* Supported the analysis to assess impacts of urban growth expansion in targeted areas around the City of McMinnville and associated requirements to expand water, sewer, and storm infrastructure. The analysis evaluated and scored the impact of growth areas for each utility system.

Collection System Modeling; Clean Water Services; Durham, OR: *Technical Support.* Providing modeling support for the CWS collection system.

Northwest Sewer Separation; City of Everett; Everett, WA: *Project Engineer.* Responsible for hydraulic and hydrologic modeling and analysis of wet weather flooding and backup issues in the combined sewer system, as well as providing design and phasing recommendations for the separated storm sewer system and detention facilities. Additional work included an analysis of multiple scenarios of varying precipitation events and stormwater management options to provide prescriptive recommendations for long-term detention pond operation and maintenance.

Sewer Capacity Analysis; City of Kent, WA: *Project Manager.* Responsible for the overall project management, analysis of existing and future capacity, deficiency analysis, improvement recommendations, and planning-level cost estimation. This project provided the City with system-level insight to aid in the redevelopment of Mountain View Academy.

On-Call Engineering Services; City of Sultan, WA: *Project Engineer.* Served as the client representative, responsible for managing and completing work focusing on development review for both the City's water system and sanitary sewer system. Tasks included pressure analysis, fire flow analyses, loading estimates and impacts, and deficiency analyses. On-call services include hydraulic and hydrologic model conversions and simulations.

Sewer Pipeline Corrosion Analysis; Kitsap County, WA: *Project Engineer.* Provided a QAQC and analysis of the County's sanitary sewer pipeline using GIS, planning and analysis documentation, institutional knowledge of the County, and as- built drawings. Provided targeted locations for sampling of pipe to ascertain level of degradation. End result was identification of locations where pipe integrity was immediately compromised, along with extensive reporting to document the existing conditions and recommendations.

Wastewater Master Plan Update; City of Wood Village, OR: *Project Engineer.* Responsibilities included updating the steady state hydraulic model with monitored wintertime use and metered sanitary flows to characterize average, peak, and I&I loading.

Evaluation of the system was based on hydraulic capacity for existing, 20-year, and build-out conditions to aid in CIP development.

Sewer System Evaluation; City of Redmond, WA: *Project Engineer.* Responsibilities included a build-out analysis of collection system facilities, including system deficiency identification, excess capacity analysis, and improvement implementation and analysis.

Sanitary Master Plan; City of Gladstone, OR: *Project Engineer.* Responsibilities included an update to the City's Sanitary Sewer Master Plan, based on updated hydraulic modeling and analysis of the sewer system.

Sanitary Sewer Master Plan Update; City of Sherwood, OR: *Project Engineer.* Responsible for the hydraulic/hydrologic and deficiency evaluation of the City's storm sewer system. Capital improvement recommendations and budget-level capital cost estimates targeted capacity deficiencies in compliance with Oregon DEQ and CWS regulatory requirements.

Basalt Creek Sanitary Sewer Deficiency Analysis; City of Wilsonville, OR: *Project Engineer.* Responsible for the hydraulic/hydrologic and deficiency evaluation of the City's sanitary sewer system.

Water System Master Plan; City of Tigard, OR: *Project Engineer.* Responsibilities included updating and calibrating the City's hydraulic model to both steady state and extended period simulation conditions. Also provided an analysis of the City's water distribution system along with documentation of water system upgrades, changes in water supply, estimations of future water requirements, deficiencies identification and recommendations for improvements, and an update to the CIP.

Water Distribution System Master Plan; City of Grants Pass, OR: *Project Engineer.* Performed analysis of the City's water distribution system along with documentation of water system upgrades, changes in water supply, estimations of future water requirements, deficiencies identification and recommendations for improvements, and an update to the CIP.

Education/Qualifications

M.S., Environmental Engineering, University of California, Berkeley

B.S., Civil Engineering, University of Notre Dame

Certifications/Training

✓ Professional Engineer: Washington (No. 49733); Kansas (No. PE21438)

Years of Experience

21

Dan Buonadonna, PE

CONDITION ASSESSMENT LEAD

Dan Buonadonna is the Global Technology Leader for Jacob's Pipeline Condition Assessment and Rehabilitation Services (CARS) practice. He has experience in condition assessment, corrosion analysis, asset management, pipeline rehabilitation, trenchless technology, and conveyance design. His project roles range from field task coordinator and construction administrator to senior technical quality reviewer and project manager. At Jacobs, he shepherds a team of over 400 practitioners who focus on implementing pipe network asset management, conducts more than $250 million per year in business revenue, and has been ranked #1 by Trenchless Technology magazine year over year.

Relevant Project Experience

Cedar Treatment Plant Ozone Contact Pipeline Assessment and Rehabilitation; Seattle Public Utilities; Renton, WA: *Project Engineer.* Performed analysis and reporting for the condition assessment of approximately 2,600 LF of 78-inch steel pipe, including internal visual inspection and non- destructive testing.

Havana Street Watermain Rehabilitation; Aurora Water, CO: *Project Technologist.* Provided QC review for 3,000LF of 30-inch welded steel pipe rehabilitated with fusible PVC sliplining technologies through contaminated soils. The locations for rehab were prioritized using non-destructive acoustic technology (p-CAT) which was validated by subsequent test pits and conventional corrosion analysis by NACE certified engineers.

East Layton Pipeline Rehabilitation; Weber Basin Water Conservancy District; Layton, UT: *Project Technologist.* Prepared preliminary and detailed design for the trenchless rehabilitation of 5,400LF of 30- inch concrete cylinder pipe and 27-inch reinforced concrete drinking water pipeline with CIPP and close-fit HDPE technologies.

City of Bellingham, Raw Water Intake, Tunnel, and Distribution Pipeline Condition Assessment, Bellingham, WA. *Project Engineer.* Performed condition assessment services on 3 miles of 6-foot tunnel, 3 miles of 48-inch triple-parallel PCCP raw water, and 1,000 LF of wood stave pipe. Project tasks included field inspection, review of underwater tunnel laser profiling data, man-entry tunnel inspection, corrosion analysis, and coring/testing of wood stave pipe samples.

Collection System Forcemain Evaluation Program; City of Portland BES; Portland, OR: *Project Manager.* Organized the strategy and tactics for $4.5 million worth of condition assessment activities for 56 miles of forcemains between 4 and 66 inches in diameter. The project included a tiered condition assessment approach, development of mobile app data collection tools, and service coordination among a broad team of subconsultants, vendors, and service providers. The effort was shared, with 34.8% minority and women-owned businesses. The project team included highly qualified partners from Rhino One, Caldera, Emerio, and Oxbow construction.

Large Scale Sewer Rehabilitation Program; City of Portland BES; Portland, OR: *Project Manager.* Coordinated delivery for $4 million worth of sewer rehabilitation engineering services for large and small diameter pipeline projects, including condition assessment,

design, and services during construction. The project team included partners from Emerio, Century West, Rhino One, and JLA Public Involvement consultants.

Sewer Master Plan; Clackamas County WES; Oregon City, OR: *Project Technologist.* Implemented a risk-based approach to assess the condition and prioritize improvements on more than 4 miles of 16-inch DIP, 20-inch steel, and 20-inch CCP forcemain; and 10 miles of greater than 18-inch RCP interceptor. The project included the use of augmented reality tools to facilitate finding and inspecting buried assets in the field, integration withasset management tools, and a cost-saving tiered approach to condition assessment.

Taggart Outfall Tunnel Rehabilitation; City of Portland BES; Portland, OR: *Project Engineer.* Performed engineering design services to structurally rehabilitate portions of a brick sewer tunnel constructed in 1906. The project was approximately 5,700 feet long, with up to 67 feet of cover. The diameter ranges from 54 to 120 inches. In addition to structurally rehabilitating portions of the outfall, the project includes manhole repair and local hydraulic improvements, and a collaborative predesign approach that included a series of review panel workshops with trenchless technology vendors and contractors.

North Lake Sammamish Flow Diversion; King County Water Treatment Division; King County, WA: *Project Technologist.* Developed a condition assessment plan and likelihood of failure approach using Six Sigma and reliability centered engineering principles for 5 miles of twin 30-inch-diameter steel forcemains.

Frient Kern Canal Pipeline Condition Assessment; City of Fresno; Fresno, CA: *Project Technologist.* Conducted direct man-entry condition assessment for 5,027 LF of 60-inch AWWA C303 bar- wrapped concrete pipe used to convey raw water to the City's treatment plant. Activities included confined space entry planning, ultrasonic, half-cell potential, and electrical resistivity tests, as well as visual and aural sounding of the pipeline. Findings were summarized in a memorandum with recommendations for repairs and continued preventative maintenance.

Delta Park Pipe Inspection and Assessment; Multnomah County Drainage District; Portland, OR: *Project Technologist.* Conducted condition assessment on 2,000 LF of 5- to 84-inch CMP levee drainage pipes in the greater Portland metro area.

Kamehameha Highway Wastewater Pump Station Forcemain System Improvements; City and County of Honolulu; Honolulu, HI: *Senior Technologist.* Performed condition assessment and alternatives analysis for the replacement and rehabilitation of 2,800 LF of 36-inch CCP sewer forcemain across a lagoon and major highway.

Incline Creek Storm Drain Culvert Condition Assessment and Rehabilitation; Incline Village General Improvement District, NV: *Project Engineer.* Performed condition assessment, pre-design, and design services for the condition assessment and trenchless rehabilitation of 5,200 LF of 24- and 72-inch CMP storm culvert. Condition assessment included geotechnical investigation and 3D LiDAR survey of the culvert. Design considerations included rigorous TRPA water quality requirements (both during and after construction) as well as impacts to the ski resort located along the alignment. Rehabilitation was performed as an alternative delivery CMAR project using pipe ramming methods to re-round and slipline 2,000 LF of deformed 72-inch conduit using steel casings.

Asset Management/Condition Assessment Strategy Development; Rancho California Water District, CA: *Senior Technologist.* Developed the condition assessment strategy for the linear pipeline assets, both water and sewer, within the District's service area. The strategy included a desktop baseline risk assessment for nearly 367 miles of large diameter water transmission mains, 605 miles of distribution system, 8 miles of large diameter sewer interceptor, and 65 miles of collection system.

Sewer Interceptors Condition Assessment; City of Vancouver, WA: *Project Manager.* Conducted the condition assessment and alternatives analysis for over 36 miles of large diameter sewer interceptors. The projects involved corrosion modeling and lifecycle cost comparisons between planned rehabilitation and corrosion mitigation methods.

Mike Piña | Subconsultant

FLOW MONITORING

Education/Qualifications

Graduate Studies, Statistics & Adult Education, University of Oklahoma

B.S., Business Management, University of Maryland

A.A.S., Electronic Systems, USAF

Years of Experience

20

Firm:

ADS Environmental Services

Mike Piña is the Region Manager for ADS Environmental Services, with 20 years of experience working in virtually every aspect of sewer collection system management including: hydraulic selection, meter calibration, installation, data analysis, smoke testing, physical inspections, flow isolations and micro-monitoring.

ADS, LLC, operating as ADS Environmental Services (ADS), is in its 45th year of service to the water/ wastewater industry, offering comprehensive, innovative flow information, from real-time flow data to temporary flow monitoring reports. Drawing upon over four decades of experience and thousands of flow and level assessment projects, product recommendations are tailored to meet the clients' most challenging projects and provide the right level of services to match budget and resources. ADS's advanced cloud-based software solutions deliver actionable insight to manage collection systems, and knowledge about system performance. From flow, level, and rainfall monitors; web-based software and apps; a variety of specialized services; and data analysis, reporting and delivery; ADS delivers the right information at an affordable cost.

ADS is the largest and recognized leader for flow metering and monitoring services. The 275 plus ADS team has 24 offices in North America supporting more than 600 active customers, 10,000 installed meters, 4,000 users on its PRISM software, and the largest flow database in the world. With this broad base, ADS has acquired a deep understanding of collection system flow behavior. ADS performs a wide range of services supporting master planning, hydraulic modeling, I/I assessment, billing networks, CSO activation monitoring, cleaning optimization monitoring, and SSO mitigation.

Mike has P&L, project, and staffing responsibility for ADS's fourteen state US West Region and Western Canada. Mike's first priority is customer satisfaction and manages his 35-plus person staff of engineering, technical, administrative, and field professionals to that end.

He serves as the Region's senior program manager supporting many large regional projects in San Diego, Los Angeles, San Jose, Seattle, British Columbia and Calgary. Mike also serves as the Region's trainer for flow monitoring and physical inspection work and assists Sales in project design, pricing, proposal writing, client presentations and contract negotiations.

Relevant Project Experience

Seattle Public Utility; Seattle, WA: *Turn-key Services.* Starting in 2007, ADS annually provides turn-key services: 24/7 alarm scrubbing, CSO overflow calculations/reports/ field service project management. Quantity of meters: 150 area-velocity meters, 12 rain monitors.

King County, WA: *Flow Monitoring Services.* For more than 20-years provided equipment, and temporary flow monitoring services. The team monitored 130 Triton+ area-velocity meters.

Citizens Energy Group, Indianapolis, IN: *Flow Monitoring & I/I Assessment.* Starting in 1988, ADS provided temporary metering focused on I/I Assessment, and Capacity Planning. Additionally long-term permanent network for billing, modeling, and CSO Activation. Services included turnkey support for meters/software, field service, and project management. Scope included Q250 area-velocity, level, and rain gauge meters.

Oakland County Water Resources Commission, Waterford, MI: *Flow Monitoring.* Starting in 1991, ADS provided temporary metering for I/I assessment, and capacity planning. Additionally, long-term permanent network support for billing. Services included turnkey support for meters/software, SCADA, and field service. Scope of equipment involved 188 area-velocity, level, rain gauge; and Nivus flow monitors.

Fulton County, Atlanta, GA: *Flow Monitoring & I/I Assessment.* Starting in 1992, ADS has been providing temporary metering for I/I assessment, and capacity planning for long-term permanent billing, and SSO mitigation. Services included turnkey support for meters/software, field service, and project management. Scope covered 280 area-velocity meters, long-range depth meters, and rain gauges.

Erin Thatcher

LOCAL LIMITS & NPDES

Erin Thatcher is a water resources engineer with 14 years of experience at Jacobs including project management, water quality and hydrologic analysis, technical report writing, spatial analysis through ArcGIS software, stormwater and receiving water monitoring and planning, wetland delineation and monitoring, wetland impact assessments, and other fieldwork. Her background includes undergraduate and graduate studies in water and wastewater engineering, ecology, and environmental law and policy. Erin has supported project teams with regulatory and water quality evaluations for numerous facility-planning documents for clients in Oregon and Washington. Erin has developed knowledge of state water quality standards and NPDES regulations. On this project Erin will support our regulatory deliverables so that we are coordinated with DEQ permitting schedules/deadlines.

Education/Qualifications

M.S., Environmental Engineering, University of Washington

B.S., Environmental Science (Minor in Environmental Engineering), Seattle University

Certifications/Training

✓ Professional Engineer: Washington (No. 57711)

Years of Experience

14

Relevant Project Experience

Coal Creek Trunk Upgrade Phase 1 - 3; King County Department of Natural Resources and Parks, Wastewater Treatment Division; Seattle, WA: *Project Manager.* Leading permit acquisition and environmental elements of a major sanitary sewer upgrade in Bellevue, WA, including significant wetland and salmon-bearing stream restoration and improvement.

Salmon Creek Treatment Plant, Columbia River Outfall & Effluent Pipeline Capital Projects; Discovery Clean Water Alliance; Vancouver, WA: *Staff Engineer.* Providing ongoing and various services related to the Salmon Creek Treatment Plant Columbia River outfall. Completed a Sampling and Analysis Plan (SAP), field sample collection, and reporting for the sediment evaluation required by the outfall's aquatic lands easement agreement with the Washington Department of Natural Resources. Compiled and submitted receiving water quality and sediment quality data to the Washington Department of Ecology's Water Quality Assessment and 303d List on behalf of Clark Regional Wastewater District.

Port Townsend Outfall Replacement Project; City of Port Townsend, WA: *Technical Lead.* Currently planning a new replacement marine outfall for the City of Port Townsend in accordance with state permit requirements. Led the development of a Facilities Plan Amendment including preliminary outfall design and water quality compliance evaluation approved by Ecology. Providing technical support for the project's federal, state and local permitting processes.

Dilution Modeling Analyses and Ongoing Permit Support for Marine Park and Westside Wastewater Treatment Facilities; City of Vancouver, WA: *Technical Lead.* Has provided dilution modeling analyses for two wastewater outfall discharges to the Columbia River as part of outfall mixing zone studies required under NPDES permits. Recently engaged in preliminary diffuser design for the Westside WRF outfall in the Columbia River to demonstrate water quality compliance. Evaluation of range of modifications to a 60-inch steel outfall with 26 ports to meet future buildout flow dilution requirements. Providing ongoing water quality compliance support related to upcoming NPDES permit renewals for both plants.

Camas Technically-Based Local Limits Development Project; City of Camas, WA: *Project Manager.* Led project that established technically-based local limits for significant industrial users discharging to the City of Camas municipal wastewater treatment plan. Delivered technically-based local limits within all applicable requirements and received approval from Ecology in 2019 within the permit-required timeline. Successfully engaged the affected industries and Ecology throughout the process.

Outfall Mixing Zone Study; Cosmo Specialty Fibers; Grays Harbor, WA: *Project Manager.* Led project that included study plan development for a field and modeling performance study of the Cosmo Fibers outfall diffuser in the South Channel of Grays Harbor. Field study elements included in situ current measurements, a dye tracer study during a complete tidal exchange period, dilution model selection and application to represent seasonal critical density stratifications, tidal currents, and Chehalis River flow conditions in Grays Harbor. Ms. Thatcher led dilution modeling and report development for Ecology submittal in September 2019.

Columbia River Water Quality Monitoring Program; City of Vancouver and Discovery Clean Water Alliance; Clark County, WA: *Technical Lead.* Has designed and directed 2.5 year-long water quality monitoring program to document dry and wet season dissolved oxygen, pH, and temperature conditions along 10 miles of the Clark County shoreline and channel in the Columbia River. Developed detailed quality assurance project plan to document technical methods and QA requirements for all sampling and analyses. Led technical exchanges with and reporting to Washington Dept. of Ecology. This monitoring program is critical to correcting Washington's incorrect 303(d) listing of the Columbia River as impaired for dissolved oxygen during the dry season.

Post Point Wastewater Plant Outfall Mixing Zone Study; City of Bellingham, WA: *Modeler.* Provided field dye study support, dilution modeling and water quality compliance assessment for the outfall mixing zone study required for NPDES permit renewal. Ms. Thatcher supported modeling and report development for the outfall mixing study of the existing marine discharge in 2016 for Ecology submittal.

Gresham Industrial Pretreatment Program Local Limits Evaluation; City of Gresham Wastewater Service Division, OR: *Staff Engineer and Project Manager.* Completed a detailed review of the City of Gresham's current industrial pretreatment local limits program for submittal to the Oregon Department of Environmental Quality. Provided project management from initial contracting through project closure.

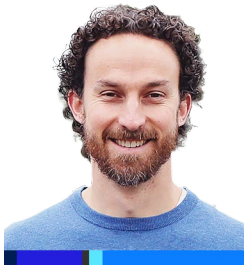
Receiving Water Study for the City of Camas – NPDES Permit WA0020249; City of Camas, WA: *Staff Engineer.* Completed a Quality Assurance Project Plan (QAPP) for receiving water quality sampling in accordance with Washington Department of Ecology requirements. Providing data analysis, reporting, and deputy project management including budget and schedule management, task management, and invoicing.

Union Pacific Railroad Industrial Stormwater Permit Support; Union Pacific Railroad; Seattle, WA: *Staff Engineer.* Providing monthly site stormwater inspections and quarterly discharge sampling in accordance with UPRR's industrial NPDES permit. Training other consultant staff in inspection and sampling procedures.

Arkema NPDES Permitting Support; Arkema, Inc. (Elf Atochem North America, Inc.), Alabama: *Staff Engineer.* Performed CORMIX dilution modeling to support development of an appropriate in-stream waste concentration in Arkema's permit renewal process with the Alabama Department of Environmental Management (ADEM). Reviewed model input parameters for accuracy and developed potential diffuser configuration recommendations to optimize dilution.

Post Point Wastewater Treatment Plant Mixing Zone Study; City of Bellingham, WA: *Staff Engineer.* Completed water quality data analysis, outfall dilution modeling, reasonable potential analysis, and mixing zone study report for the City of Bellingham's Post Point Wastewater Treatment Plant permit. Completed a field dye tracer study in July 2015.

City of Centralia Wastewater General Sewer/Facility Plan; City of Centralia, WA: *Staff Engineer.* Completed a reasonable potential analysis for inclusion in the City of Centralia's combined General Sewer Plan/Facility Plan for review and approval by the Washington Department of Ecology for compliance with water quality standards.



Education/Qualifications

M.S., Environmental and Water Resources Engineering, University of Texas

B.S., Civil Engineering, Gonzaga University

Certifications/Training

- ✓ Professional Engineer: Washington (No. 48177)
- ✓ Certified Floodplain Manager (2019)

Years of Experience

11

Tyler Jantzen, PE

CLIMATE RESILIENCY

Tyler Jantzen is a water resources engineer with more than 11 years of experience in hydrologic and hydraulic modeling and analysis, flood risk management, stream restoration, climate change adaptation, and dam-break analysis. He has been involved as a team member on a variety of projects that have included climate change adaptation, hydrologic and hydraulic (H&H) modeling, stream restoration, stormwater planning, roadway drainage design, and combined sewer system analysis.

Relevant Project Experience

Phased Climate Resilience Flood Assessment; Arlington County, VA: *Water Resources Engineer and Climate Analyst.* Provided rainfall analysis, extreme water level, sea level rise and climate change projections to flood modeling and planning. Updated intensity-duration- frequency (IDF) curves based on the latest observed precipitation records. Performed IDF analysis using a robust multi-station L-moments approach. Projected IDF curves based on observed data to future climate conditions using the latest IPCC climate model results and SimCLIM climate analysis software. Projected extreme water level based on NOAA tidal records and Sea Level Rise projections from the USACE sea level rise online tool. Recommended baseline and future climate scenarios for inland, riverine and coastal flood modeling.

Green Infrastructure Program Implementation; City of Lancaster, PA: *Water Resources Engineer and Climate Analyst.* Provided rainfall analysis and climate change projections to support stream restoration, green infrastructure design, roadway drainage design, and riverine flood planning. Evaluated the quality of precipitation records at multiple climate stations. Updated intensity-duration-frequency (IDF) curves based on the latest observed precipitation records. Performed IDF analysis using a robust multi-station L-moments approach. Projected IDF curves based on observed data to future climate conditions using the latest IPCC climate model results and SimCLIM climate analysis software.

Climate Change and Natural Hazard Resiliency and Security Consultation; U.S. Department of State; Washington, D.C: *Climate Change Analyst.* Managed the development of a Climate Risk Screening and Reporting database and toolset used to evaluate climate hazard exposure for hundreds of locations across the globe, covering most countries and 6 continents. Climate hazard focused on flooding, heat stress, sea level rise, tropical cyclones, and drought. Supported the development of a Climate Resilience and Security Program that instilled climate resilience planning within all aspects of the project life cycle.

Dekalb County Consent Decree Program Management Team – Precipitation Analysis; Dekalb County, GA: *Water Resources Engineer and Climate Analyst.* Performed precipitation and meteorological analysis to develop precipitation design events for the use in sewer modeling. Evaluated existing intensity-duration-frequency (IDF) curve methodology and results, with respect to recent observed events and provided update recommendations. Developed an Alternating Block precipitation event distribution based on NOAA Atlas 14 IDF curves and compared the Alternating Block distribution to SCS Type II distribution. Compared actual observed event distributions to synthetic distributions (SCS Type II and Alternating Block), and recommended design storm and distribution for use in sewer modeling.

Precipitation Time Series Climate Change Perturbing for Combined Sewer Overflow (CSO) Modeling; Seattle Public Utilities; Seattle, WA: *Climate Change Impacts Analyst.* Led the technical development of high temporal resolution precipitation time series that account for potential future climate conditions. Future climate time series were based on observed precipitation, scaled to account for climate change, and used in existing CSO models to evaluate the impacts of possible future precipitation on the CSO system. Developed a scaling method based on both observed storm intensity as well as monthly climate change patterns, using an ensemble of global climate model (GCM) results and the climate analysis software package SimCLIM.

Evaluation of Climate Resiliency for I-80 and I-380 Corridors; Iowa Department of Transportation; Johnson County, IA: *Climate Change Impacts Analyst.* Led the analysis of potential climate change impacts to the portion of Interstate 380 within rural portions of Iowa, focusing on climate impacts that affect the risk of corridor closure. Reviewed and summarized existing literature relating to historic climate and potential future climate changes, as well as literature related to general climate impacts on transportation infrastructure. Developed a technical memorandum summarizing resilience of the corridor and recommending actions to reduce risk of future highway closure.

TAPI Environmental & Social Impact Assessment Study; TAPI Pipeline Company Limited; Afghanistan/Pakistan: *Climate Change Impacts Analyst.* Assessed potential impact of historical and likely future climate on a proposed 1600-kilometer natural gas pipeline crossing Afghanistan and Pakistan, as part of a wider Environmental and Social Impact Assessment. Analysis focused on climatic parameters most likely to affect pipeline construction and operations, including temperature extremes, precipitation extremes and associated flooding, wind, and humidity. Qualified impact significance was based on likelihood, frequency, severity and duration of the potential impact. Analysis was based on a broad level analysis over the entire 1600- kilometer site, with focused and detailed analysis at eight locations representing climate variation along the route. Future climate analysis focused on projected climate in 2050, 2070, and 2100 using RCP8.5 greenhouse gas emission scenarios and an ensemble approach including all available IPCC general circulation model results.

Tom Jones

COST ESTIMATING

Education/Qualifications

Various undergraduate classes, University of New Mexico

Engineering Assistant Training, United States Air Force

Years of Experience

25

Tom Jones is a senior cost estimator with more than 25 years of experience in overall construction project management, estimating, contract administration, scheduling, material and equipment procurement, and communications with owner and engineer. He is experienced managing bid teams, developing the bid strategies, and maintaining subcontractor relationships. Tom's expertise includes preparing competitive hard bid cost estimates by using an estimating team, coordinating and negotiating with subcontractors, reviewing and problem-solving how to construct large, complex projects. He specializes in structural, civil, architectural, and process mechanical cost estimating, with the ability to estimate all trades and disciplines to produce complete and accurate cost estimates.

Relevant Project Experience

McMinnville Water Reclamation Facility (WRF) Tertiary Treatment and Disinfection Project, City of McMinnville, McMinnville, OR: *Lead Cost Estimator.* Responsibilities included preparing a Class 3 and Class 2 cost estimates based on 60% and 90% design documents. Collected data and performed quantity take-offs to use as inputs for the cost estimate to determine and reconcile project scope. Applied costs to scope items and compiled the information into a Basis of Estimate document. Worked with the project team to review and confirm project scope and estimate pricing. This $2.7M project is for the improvement to the tertiary treatment and disinfection systems of the McMinnville WRF. Improvements include replacement of the existing UV system, modifications to the existing Tertiary Filter system, recoating of the Tertiary Clarifiers No. 1 and 2, and recoating ATAD No. 3.

McMinnville WRF Secondary Expansion Project; City of McMinnville, OR: *Lead Cost Estimator.* The McMinnville Water Reclamation Facility (WRF) consists of preliminary, secondary, and tertiary treatment and solids processing facilities. Based on recommendations from the McMinnville Water Reclamation Facility Facilities Plan Update (West Yost Associates and CH2M, October 2008), the City of McMinnville determined to expand the secondary treatment capacity of the WRF. The Facilities Plan Update recommended construction of a third Orbal and secondary clarifier in order to accomplish increase dry weather nitrification capacity so that one Orbal can be taken off line for maintenance, and increase wet weather capacity to at least 32 million gallons per day (mgd) to eliminate blending. The project definition phase of the project focused on confirming that a third Orbal and secondary clarifier were the best solution for the secondary treatment expansion. Approximate construction costs of $10.4 million. Prepared a Class 2 cost estimate based upon 90% design documents. Led cost estimating and delegated assignments to the cost estimating team. Collected data and performed quantity take-offs to use as inputs for the cost estimate to determine and reconcile project scope. Applied costs to scope items and compiled the information into a Basis of Estimate document. Worked with project team to review and confirm project scope and estimate pricing.

WWTP – Phase 2B Expansion; City of Tracy, CA: *Lead Cost Estimator.* Responsibilities included preparation of Class 3 to Class 1 cost estimates based upon design

documents; collecting data and performing quantity take-offs to uses as inputs for the cost estimate to determine and reconcile project scope; applying costs to scope items and compiling the information into a Basis of Estimate document; and working with project team to review and confirm project scope and estimate pricing. This project encompasses work required to expand the treatment capacity of the existing WWTP, including site work, septage receiving, headworks, grit removal, primary clarifier, dewatering pump station, aeration basin, digesters, dewatering facility, and modifications to existing facilities. Approximate construction costs were $50 million.

WWTP – Secondary Treatment and Dewatering Project; City of Sunnyvale, CA: *Lead Cost Estimator.* Working as part of a team providing structural and architectural estimates. Responsibilities include preparation of Class 3 and Class 2 cost estimates based upon design documents, collecting data and performing quantity take-offs to uses as inputs for the cost estimate to determine and reconcile project scope, applying costs to scope items and compiling the information into a Basis of Estimate document. Working with project team to review and confirm project scope and estimate pricing. This project encompasses work required to expand the treatment capacity of the existing WWTP, including site work, primary effluent distribution structure, utilidor, bioreactor, blower building, secondary clarifiers and mixed liquor splitter, ras/was pump station, hydrocyclones, thickening and dewatering building, sludge blend tank, supernatant pump station, digested sludge storage tank, sidestream treatment, and other minor facility improvements. Approximate construction costs are $190 million.

Water Resource Recovery Facility Project; City of San Luis Obispo, CA: *Lead Cost Estimator.* Responsible for the preparation of Class 3, Class 2, and Class 1 cost estimates based upon design documents. Included collecting data and performing quantity take-offs to use as inputs for the cost estimate to determine and reconcile project scope, applying costs to scope items, and compiling the information into a Basis of Estimate document. Worked with project team to review and confirm project scope and estimate pricing. The project encompassed work required to expand the treatment capacity of the existing WWTP, including site work, water resource center, wetlands, air gap building, equalization pond, headworks, chemical facilities, vactor truck facility, clarifiers, sludge pump station, bioreactors, membrane building, and modifications to existing facilities. Approximate construction costs were $112 million.

Ina Road WRF Capacity and Effluent Quality Upgrade and Interim Biosolids; Pima County; Tucson, AZ: *Lead Cost Estimator.* Responsibilities included delegating cost estimating assignments to the cost estimating team for preparation of three separate cost estimates based upon 30%, 60%, and 90% design documents; collecting data and performing quantity take-offs to use as inputs for the cost estimate to determine and reconcile project scope; and applying costs to scope items and compiling the information into a Basis of Estimate document. The project was constructed under a Construction Manager at Risk (CMAR) contract. Responsible to work with the project team to review and confirm project scope and estimate pricing; and reconciling cost estimates with the CMAR contractor at each level of design. The project expanded the Ina Road Wastewater Reclamation Facility (WRF) from its current design capacity of 37.5 million gallons per day (mgd) to the 50-mgd average capacity projected in the November 2007 Pima County Regional Wastewater Reclamation Department (PCRWRD) Regional Optimization Master Plan Final Report (ROMP) for the year 2030. The project also provided handling capacity for solids from both the Ina Road WRF and the future Water Reclamation Campus (WRC) at its projected year 2030 capacity of 32 mgd. Approximate construction costs were $210 million.

Honouliuli WWTP Secondary Treatment, Phase 1A-Sludge Drying and Related Facilities; City of Honolulu, HI: *Lead Cost Estimator.* Responsible for the preparation of a Class 3, Class 2, and Class 1 cost estimates based upon design documents; collecting data and performing quantity take-offs to uses as inputs for the cost estimate to determine and reconcile project scope; and applying costs to scope items and compiling the information into a Basis of Estimate document. Worked with the project team to review and confirm project scope and estimate pricing. The project completes the Phase 1A Design and provides Bid Phase Support Services for the Honouliuli WWTP (HLIWWTP) Secondary Treatment Expansion Project.

Education/Qualifications

B.S., Civil and Environmental Engineering, Portland State University

Certifications/Training

✓ Professional Engineer: Oregon (No. 78020)

Years of Experience

15

Sam Chandler, PE

CIVIL ENGINEER

Sam Chandler is a skilled civil engineer with a technical background in stormwater management design and practices, stormwater hydraulics, wastewater conveyance, erosion control, permitting, site grading, underground utility and yard piping design, sanitary sewer and conveyance pipeline design, and pavement design. He brings expertise with a wide variety of software tools to deliver quality design and has versatile experience with various project delivery methods.

Relevant Project Experience

McMinnville Tertiary Treatment and Disinfection Project; City of McMinnville, OR: *Lead Civil Engineer.* Provided engineering support for improvements to the Tertiary Treatment and UV Disinfection systems. Tasks included developing details for pavement restoration, coordinating new duct bank route with existing yard piping, and erosion control plan.

SJSC Regional Wastewater Facility (RWF) Headworks Improvements Design-Build; City of San Jose, CA: *Lead Civil and Yard Piping Engineer.* Led civil and yard piping design for $105M expansion of the RWF. Layout of new facilities included new screening, raw sewage pump stations, grit removal, and electrical building. Layout of yard piping included 1,500 LF of 96" RS piping, 120" and 108" RS piping, new recycled water and non-potable water systems, stormwater piping, and multiple connections to existing piping. Additional responsibilities included providing stormwater calculations for runoff and volume for pump station sizing, pavement design, and erosion control layout. Facility lead for lining an existing raw sewage overflow basin.

Residuals Replacement and Upgrades to Building D2; Upper Occoquan Service Authority; Centreville, VA: *Lead Civil Engineer.* Civil lead for upgrades to the existing Digester Complex Building and Thickening and Screening Building. Tasks included erosion control, surface restoration, pavement overlay, and yard piping.

Tri-City WRRF Solids Upgrade; Clackamas WES; Clackamas County, OR: *Lead Civil Engineer.* Lead civil engineer for 30% design phase of delivery of upgrades to the Tri-City WRRF. Project included construction of new digester and dewatering facility. Tasks included developing truck route through site, facility locations, site grading, yard piping, and stormwater design.

Air Emissions Control Equipment Replacement; Hollingsworth and Vose; Corvallis, OR: *Lead Civil Engineer.* Civil improvements required to support emissions upgrades for production process. Responsibilities included site grading, coordination with landscaping subcontractor, stormwater management, land use permitting, erosion control, yard piping, underground utility coordination, traffic control plans, public right of way improvements, and as-built drawings.

Grants Pass WRP Phase 2 Upgrades Design-Build Project; City of Grants Pass, OR: *Resident Engineer.* Resident Engineer for initial construction phase of a plant- wide upgrade to the City's WRP. Responsibilities onsite included responding to contractor requests for information (RFIs), reviewing submittals, inspecting erosion control measures, providing oversite during excavation for new facilities, yard piping, and installation of shoring to protect existing facilities.

Tracy Phase 2B Wastewater Treatment Plant (WWTP); City of Tracy, CA: *Lead Civil and Yard Piping Engineer.* Provided site layout for new digester and support facility, electrical building, dewatering facility, grit removal facility, and primary clarifier. Coordinated yard piping between the new facilities. Responsible for coordination between new electrical duct banks and yard piping, pavement design, and erosion control.

Haikey Creek WWTP; Regional Metropolitan Utility Authority; Broken Arrow, OK: *Lead Civil Engineer.* Lead civil engineer for 30% design phase of delivery of new blower building and aeration basin at the Haikey Creek WWTP. Tasks included site layout and grading for the new facilities, yard piping, and expansion of existing plant road network.

Clay Street Water Pipeline Replacement; City of Dallas, OR: *Staff Civil Engineer.* Provided design for 24-inch HDPE water main at a creek crossing. Provided support for the permitting process and erosion control requirements.

Opal Springs Hydroelectric Project – Pool Raise and Fish Passage Improvements; Deschutes Valley Water District; Culver, OR: *Staff Civil Engineer.* Assisted senior civil engineer on coordination of temporary construction access to the dam and fish ladder, site grading, and erosion control.

WRRF Improvements; City of San Luis Obispo, CA: *Lead Civil Engineer.* Lead yard piping engineer for 60% design phase of delivery of a plant-wide upgrade to the WRRF. Tasks included yard piping design, coordination of site grading and stormwater design with subconsultant, replacement liner for the equalization basin, and semi-truck access to the solids facility.

Paradise Point WTP; Clark Public Utilities; Ridgefield, WA: *Assistant Civil Engineer.* Assisted lead civil engineer with site layout, stormwater design, and yard piping for new water treatment plant on a greenfield site.

Water Station 1 Improvements; City of Vancouver, WA: *Staff Civil Engineer.* Assisted lead civil engineer for the site civil design on a new booster pump station at the existing water treatment plant. Responsibilities included yard piping, site grading, and development of construction details.

Chorley WWTW; United Utilities; Chorley, United Kingdom: *Assistant Civil Engineer.* Assisted lead engineer with project coordination, yard piping design, site layout for three new clarifiers, odor control, blower building, and improvements to the existing headworks facility. Project challenges included identification of existing underground utilities from record drawings and field reconnaissance, coordination of major piping tie-ins, and redesign of existing storm drain system.

PXD-Midland WPCP Upgrades EPC; City of Midland, TX: *Staff Civil Engineer.* Assisted lead civil engineer with developing an existing yard piping report based on underground exploration through utility potholes and ground penetrating radar.

Ken Galardi, PE

ODOR CONTROL

Ken brings more than 27 years of experience specializing in odor control equipment for municipal WWTP, design of biological technologies for odor control systems in addition to chemical scrubbers and carbon adsorbers. Experienced in odor control system design from conceptual through detailed design, including P&ID and PFD development, controls and instrumentation, control strategies, commissioning, troubleshooting, sampling, performance testing, and O&M training.

Education/Qualifications

B.S., Chemical Engineering, Syracuse University

B.S., Chemistry, State University College at Oneonta

Certifications/Training

- ✓ Professional Engineer: Oregon (No. 91350PE); California (No. 5101); Washington (No. 53679); Hawaii (No. PE-17364); Kansas (No. PE25177)

Years of Experience

27

Relevant Project Experience

Seal Beach Pump Station Rehabilitation (P3-62); Orange County Sanitation District, CA: *Odor Control Engineer.* Project consists of extensive collection system sampling and analyses, odor control technology evaluation and selection for both vapor phase and liquid phase technologies, and final design documents. Prepared sampling plan and led sampling team through data collection at multiple sites. Set up pressure sensors and hydrogen sulfide monitors throughout collection system network for continuous data.

Southeast Water Pollution Control Plant, Biosolids Digester Facilities Project (CS-235); San Francisco PUC, CA: *Facility Lead Engineer.* Project consists of a 100,000 cfm three stage odor control system including chemical scrubber, biofiltration and carbon adsorbers. Unique project attributes include limited space on site necessitating a stacked design with biofilters below grade and carbon adsorbers above grade.

Salmon Creek Treatment Plant Solids Handling Improvements Project; Discovery Clean Water Alliance; Vancouver, WA: *Lead Odor Control Engineer.* Surveyed solids odor sources to develop odor control strategy. Developed sampling plan and worked with Jacobs' modeler to develop AERMOD model to prioritize sources for treatment to meet fenceline odor goal and permit requirements. Compared appropriate odor control technologies and adopted dry media adsorption. Project also involves a biological odor control facility and new covers for primary treatment.

Tri-City Water Resource Recovery Facility Solids Handling Improvement Project; Clackamas WES; Clackamas County, OR: *Lead Odor Control Engineer.* Develop design for odor control of the new solids handling facility. Project included treatment of new and existing odor sources and evaluation of existing carbon adsorbers to be refurbished for use in the project.

Waterbury Wastewater Treatment Plant Condition Assessment; City of Waterbury, CT: *Lead Odor Control Engineer for Condition Assessment.* Inspection of existing odor control equipment for condition assessment. Identified operational issues and developed short- and long-term improvements to increase odor removal efficiency. Other improvements are recommended to update components, improve chemical usage, and improve monitoring.

Sunnyvale Water Pollution Control Facility Odor Control Project; City of Sunnyvale, CA: *Lead Odor Control Engineer.* Development of odor control strategy for the treatment plant odor sources. The project includes a detailed sampling plan, odor source prioritization, and AERMOD model development. Data is applied to model the future plant that includes specific upgrades to the primary treatment and new secondaries

project. Lead development of the selected odor control technology in the project design.

Four Mile Creek WWTP, Wichita, KS: *Facility Lead Engineer.* Project includes an in-ground engineered media biofilter (10,000 cfm), humidifier and fans to treat foul air from the influent wet well and screenings facility, in accordance with NFPA code requirements.

Klineline Interceptor, Vancouver, WA: *Facility Lead Engineer.* Project included an alternative analysis study to upgrade an existing biofilter vs new system to treat odors from a sewer system interceptor. The project was designed with an in-ground engineered media biofilter (3,400 cfm) system to resolve a problem area due to excess odor.

Brightwater Water Treatment Plant; Siemens Water Technologies; Seattle, WA:* *Project Manager.* Managed the supply of the odor control system that included multiple stages of treatment including bioscrubbers, chemical scrubbers and carbon adsorbers. Duties included final design submittal approval, oversee fabrication of equipment, Odor Control Site Coordinator, equipment delivery receipt and inspection, installation support and commissioning, owner training, performance testing, and contract closeout.

Odor Control Products; Evoqua Water Technologies (formerly Siemens Water Technologies), San Diego, CA:* *Project Manager.* Working directly with external customers identifying the needs of the project and internal customers across all functions, including Application Engineering, Sales, Project Management, Business Excellence, Order Execution, Supply Chain and Customer Service.

Changi IPS; Public Utilities Board; Singapore:* *Project Engineer.* Lead odor control engineer for supply of large odor control system treating the Influent pump Station. System included multi-stage chemical scrubbers followed by carbon polishing. Completed project detailed design and execution, including factory testing and FRP quality control.

Odor Control Project; Ulu Pandan; Singapore:* *Project Manager.* Managed a major odor control project in Singapore. This system included 38 wet scrubber towers, 17 carbon adsorbers, 55 fans, 76 centrifugal pumps and 55 chemical dosing pumps as well as chemical storage tanks, ductwork, instrumentation and controls. Managed all aspects of project from completion of design, final client approval, field installation supervision, commissioning, startup, testing and training, coordination with client all over the course of 15 months, on-site management. Completed the project on time, below budget with no contractor backcharges, collected all final payments and demonstrated system operation and performance.

Ammonia Treatment System; Intel; Hillsboro, OR:* *Design Lead.* Lead odor control engineer for design/development of unique ammonia removal system. Process removed excess ammonia from waste water by stripping, then capturing ammonia from air by chemical scrubber, returning air stream back to stripper, skid-mounted and automated.

Cerro Verde; MWH/Flour; Peru:* *Applications Support.* Lead odor control designer supporting specification and drawings development for consultant. Project later awarded for supply of this odor control system consisting of biotrickling filters followed by carbon polishing with remote monitoring and PLC control

Michelin; Thailand:* *Design Lead.* Lead odor control engineer for ammonia removal system scaled up for larger flow, managed design and supported local Siemens team through procurement and startup. For this system, the resulting scrubber solution containing concentrated ammonia salt was processed through a crystallizer to provide ammonium sulfate to be used by local farmers.

Multiple Municipal Odor Control Projects; USA and Overseas:* *Project Engineer.* Project engineer for supply of odor control equipment for use on pump stations, and other WWTP processes for over 20 projects. Prepared submittal document for approval by consulting engineer, internal fabrication documents, BOM, prepare O&M manual and oversee delivery and startup activities. Systems include standard products for packaged multi-stage chemical scrubbers, carbon adsorbers, packaged biological systems, packed towers and degasifiers. Multiple locations throughout the US and worldwide including Middle East and Asia.

* Work performed with other firms

Education/Qualifications

BAARC, Architecture, University of North Carolina at Charlotte

Certifications/Training

- ✓ Registered Architect: Oregon (No. 5141); Washington (No. 9500); Nevada (No. 6358); Colorado (No. 401829); California (No. C 33068); Hawaii (No. 17245); Utah (No. 10090684-0301); Texas (No. 26787); Arizona (No. 71558)
- ✓ National Council of Architectural Registration Boards (NCARB); Certified (2007, No. 62354)
- ✓ Accredited Professional: Leadership in Energy and Environmental Design (LEED®); 2004
- ✓ Accredited Professional: Leadership in Energy and Environmental Design (LEED®) BD&C; 2011

Years of Experience

24

Geoffrey B. Kirsten, RA, NCARB, AIA, LEED AP BD&C

ARCHITECT

Geoff Kirsten is an architect with more than 24 years of experience working throughout the United States on projects including municipal water and wastewater treatment plants, military facilities, and educational facilities. As a senior project architect, his architectural responsibilities include report preparation, design, specification production, project coordination, quality control, and services during construction. He is experienced in coordinating projects that involve many disciplines, including structural, mechanical, electrical, HVAC, plumbing, instrumentation and control, and landscape architecture. He is experienced with industrial building design including design for hazardous occupancies.

Relevant Project Experience

Cornelius Aquifer Storage and Recovery (ASR) Well; City of Cornelius, OR: *Architect.* Architectural scope of work included a new pump station. The new structure consisted primarily of load-bearing masonry walls with asphalt roofing over prefabricated wood truss roof framing. Responsible for concept design, design development, and construction documents and services during construction.

Beaver Creek Water Supply; Seal Rock Water District; Seal Rock, OR: *Architect and Quality Control Reviewer.* Architectural scope of work included a new raw water intake building and new membrane building.

Water Treatment Plant Expansion; Joint Water Commission; Forest Grove, OR: *Quality Control Reviewer.* Architectural scope of work included a new filter building and retrofit of an existing administration building.

Tri-City Water Resource Recovery Facility Solids Handling Improvement Project; Clackamas WES; Clackamas County, OR: *Quality Control Reviewer for Architectural Design.* Provided quality control review for architectural scope of work that included a new dewatering and digestion control building, a new digester and upgrades to existing thickening and digester control buildings.

Control Station Upgrades; Medford Water Commission (MWC); Medford, OR: *Architect.* Project to expand capacities of three control stations. Served as lead architect for design of two stations (Conrad and Rossanley). Following findings of a predesign evaluation of the third station (Martin), the MWC decided to have a completely new station designed and constructed under a separate contract.

Newberg Phase 1 Reuse Water System; City of Newberg, OR: *Architect.* Architectural scope of work included two new buildings, for reuse and electrical. The structures consisted primarily of load-bearing masonry walls with sheet metal roofing over steel roof framing. The overall goal of the project was to provide a tertiary treatment membrane system with the capability to produce 1 MGD of Level IV water to a nearby golf course and to address electrical and control deficiencies. Responsible for concept design, design development, and construction documents and services during construction.

Grabhorn Aquifer Storage and Recovery (ASR) Pump Station; Tualatin Valley Water District; Beaverton, OR: *Architect.* Architectural scope of work included one new building to house pumps, chemical storage, and an emergency generator. The goal of the project was to provide a facility that would allow for recovery of stored aquifer water during times of peak demand. Responsible for concept design, design development, construction documents, and services during construction.

Water Treatment Plant Expansion to 9.5 MGD; City of Newberg, OR: *Lead Designer.* Lead designer within architectural discipline. Architectural scope of work included one new chemical building and retrofitting one existing building. The new structure was a pre-engineered metal building. The existing building retrofit consisted primarily of updating doors, louvers, windows, security provisions, and new finishes. The overall goal of the project was to expand the plant's capability to 9.5 MDG, provide a security upgrade, and improve some of the outdated facilities. Responsible for concept design, design development, and construction documents and services during construction.

Green River Water Treatment Plant Ozonation Facility; City of Tacoma Department of Public Utilities; Tacoma, WA: *Lead Designer.* Lead designer within the architectural discipline. Architectural scope of work included two new buildings (ozone building and ozone injector pump station) and retrofitting one existing building. The new structures consisted primarily of load bearing masonry walls with sheet metal roofing over metal trusses. The existing building retrofit consisted primarily of updating doors, louvers, and finishes. The overall goal of the project was to meet water quality regulatory requirements and increased demand. Responsible for concept design, design development, and construction documents and services during construction.

Salquist Pump Station and Wheeler Road Reservoir Chlorine Residual Booster Station; City of Gresham, OR: *Lead Designer.* Lead designer within architectural discipline. Architectural scope of work included two new buildings for the pump station and rechlorination. Responsible for concept design, design development, and construction documents and services during construction.

24th and Evergreen Reservoirs and Pump Stations; City of Hillsboro, OR: *Lead Designer.* Responsible for concept design, design development, and construction documents and services during construction. Architectural scope of work included two new pump station buildings. The overall goal of the project was to increase the city's water storage and pumping capacity. A new 15-MG reservoir and retrofit of a 6-MG reservoir were the primary focus of the project.

Education/Qualifications

M.S., Engineering & Science Management, University of Alaska

B.S., Mechanical Engineering, University of Minnesota

Certifications/Training

✓ Professional Engineer: Oregon (No. 72325PE); Washington (No. 41701); California (No. M34000); Alaska (No. 7871); Nevada (No. 017023); Rhode Island (No. 10153)

Years of Experience

36

Patrick Rausch, PE, LEED AP

BUILDING SERVICES

Patrick Rausch started his career with Jacobs as a discipline lead engineer for building mechanical systems that include HVAC, fire protection and plumbing systems. He transitioned to Group/Operations Leader, while continuing to advance in design and technology leadership within the discipline. Patrick delivers water resource infrastructure design of water treatment, reuse and conveyance systems from the Jacobs Corvallis Design Center. Strong leadership, communication and organizational skills directed Patrick's success as discipline lead for the Design Center's largest projects, from the Changi WRP in Singapore to most recently completed San Francisco Southeast Water Pollution Control Plant biosolids replacement project. Patrick is well-engaged with our Solutions & Technology Business Unit, helping to bring value to our clients through technical innovation in building mechanical design.

Relevant Project Experience

Secondary Treatment and Dewatering Project; City of Sunnyvale, CA: *Fire Protection Design Engineer of Record.* Leads the design of fire protection systems including wet-pipe automatic sprinklers and double interlock pre-action dry-pipe fire suppression systems for this wastewater treatment plant expansion. Three facilities will include fire protection systems with design criteria established based on NFPA 13. Coordination with yard piping for fire hydrants, fire truck access and fire alarm systems monitoring of supply valve tamper switches, sprinkler riser flow switch and water flow alarm bell are significant elements of this design. As a sub-consultant, pro-actively organized cross-discipline meetings to accelerate development of fire water supply system to each new facility; provided critical analysis of NFPA 820 to summarize fire protection requirements to gain early acceptance by client and local Fire Chief.

South Truckee Meadows Water Reclamation Facility Expansion Project; Washoe County; Reno, NV: *Fire Protection Design Engineer of Record.* Leads the design of fire protection systems including wet-pipe automatic sprinklers and double interlock pre-action dry-pipe fire suppression systems for this water reclamation facility expansion. Two facilities will include fire protection systems with design criteria established based on NFPA 13. Coordination with yard piping for fire hydrants and fire alarm systems monitoring. Engineer of Record also for the design of HVAC and Plumbing systems six new and existing building remodels including a new process control laboratory expansion of an existing Control Building. Mr. Rausch demonstrated through Life Cycle Cost Analysis that a variable refrigerant flow system with energy recovery dedicated outside air system provided the Owner the lowest cost over the analysis period of 30 years.

Southeast Plant Biosolids Digester Facilities Project (BDFP); San Francisco Public Utilities Commission; San Francisco, CA: *Mechanical Engineer of Record/HVAC Discipline Lead.* Worked closely with SFPUC to establish design criteria and lead three contributing design teams to consistent execution of the criteria. This biosolids project includes combined heat and power utilizing digested sludge bio-gas to generate power and high-pressure steam for process and building heating systems. This is one of the largest and most complex CMGC projects SFPUC has undertaken as part of its Sewer System Improvement Program (SSIP). The scope of work is to replace the existing and aging

solids facilities with a new biosolids processing solution that reliably meets the SSIP Goals and Levels of Service (LOS). The project will help minimize plant impacts to the neighborhood. Delivered steady, comprehensive management of the HVAC discipline designs across three firms to maintain CAD standards, consistency in HVAC Instrumentation Diagrams and Control Descriptions, and approved design criteria.

Riverside Park Water Reclamation Facility, Egg-Shaped Digester Facility; City of Spokane, WA: *Mechanical Engineer of Record.* Completed the design for the HVAC and plumbing systems. Designed ventilation and fire protection measures to the latest version of NFPA 820. The project involved the installation of 2 new egg-shaped digesters and the associated digester equipment rooms. The design includes accommodations for future digester replacement adjacent to this project site. Heating included 30-psi steam connected to the plant-wide distribution system. Contributed simple design concepts leading to accessible equipment for maintenance and compliance with wastewater facility safety standards; allowances for future design included and retained through construction services.

Brightwater Wastewater Treatment Facility; King County, WA: *Mechanical Discipline Lead.* Led design of the HVAC, plumbing and fire protection systems from the early schematic design through approximately 80-percent completion. Also supported the project as a LEED Accredited Professional for mechanical engineering design plant-wide. The project is registered with the U.S. Green Building Council for obtaining certification under the LEED program at a Silver Rating for the non-process buildings.

Point Lay Septage Receiving Addition; North Slope Borough Alaska; Point Lay, AK: *Mechanical Engineer of Record – Building Mechanical Systems.* Responsibilities include remodel of existing sewage treatment plant and new septage receiving expansion. Includes heating glycol system boiler and pumping system replacement and pipe extension to expansion. New ventilation and controls to control fire and explosion risks in accordance with NFPA 820. Arctic design conditions for design and construction prevail.

Houston Waterworks Team, Northeast Water Purification Plant Expansion; Houston, TX: *Building Mechanical Quality Control Lead Engineer.* Led quality control review for all treatment plant and raw water intake facilities required to treat 160 MGD of surface water from Lake Houston.

Alex Firth, PE, SE, LEED AP

STRUCTURAL ENGINEER

Alex Firth is a structural engineer who brings extensive experience as part of Jacobs' Water Business Group in Corvallis, Oregon. He has worked on a variety of structural projects over his 35-year career, including water and wastewater treatment plants, industrial facilities, resident construction inspections, and bridge inspections. He is experienced with designs for new construction and building retrofits, including considerable work involving seismic investigations.

Education/Qualifications

Graduate Studies, Structural Engineering, Oregon State University

B.S., Civil Engineering, Oregon State University

Certifications/Training

- ✓ Professional Engineer: Oregon (No. 15977)
- ✓ U.S. Green Building Council: LEED Accredited Professional (46999)

Years of Experience

35

Relevant Project Experience

Leonard Water Treatment Plant; North Texas Municipal Water District; Leonard, TX: *Lead Structural Engineer.* Led the design of a 70 MGD greenfield water treatment plant. Responsible for the overall structural design of multiple concrete treatment facilities and above grade support structures. Due to the project location, one facility is designed for tornado resistance, and multiple personnel buildings contain hardened tornado shelters.

WRF DBO Project; Pima County, AZ: *Lead Structural Engineer.* Project includes design and construction of a new 24-mgd, $158-million water reclamation facility housing seven separate facilities, as well as pipeline, basins, and tanks. Scope includes innovative treatment process using DAF clarification and 5-stage Bardenpho, enhanced with step-feed capabilities. This process is then followed by deep tanks.

WWRP Disinfection Improvements; City of Corvallis, OR: *Structural Engineer.* Project included a new chlorine contact basin, effluent metering facility, and a new sodium bisulfate feed system for dechlorination. The work also included new secondary effluent piping from the existing secondary clarifiers to the new chlorine contact basin as well as new plant effluent piping from the new chorine contact basin to the existing outfall piping system.

Camp Pendleton Advanced Water Treatment Plant; NAVFAC, Marine Corps Base Camp Pendleton; San Diego, CA: *Lead Structural Engineer.* Led the structural design for a new, greenfield water treatment facility consisting of an operations building, chemical storage facility, reverse osmosis facility, iron removal facility, decarbonation, pump station, brine storage tanks, and clearwell. Designed per the military's Unified Facilities Criteria and the International Building Code.

Phase 6 Expansion, Rock Creek Advanced Wastewater Treatment Plant (AWTP); Clean Water Services; Hillsboro, OR: *Lead Structural Engineer.* Project to expand the Rock Creek AWTP to 60 mgd, which included a new direct filtration facility, a new secondary clarifier and increased filtration capacity, and the addition of the dewatering centrate equalization system, as well as other miscellaneous improvements at this rapidly growing plant.

Robindale Wastewater Treatment Plant Renovation and Expansion; Brownsville Public Utilities Board; Brownsville, TX: *Lead Structural Engineer.* Led the structural design for a $32 million design-build project, the first municipal design-build project in Texas. The project expands the plant's treatment capacity from 10 mgd to 14 mgd. The project also includes a retrofit of existing facilities to support Modified Ludzack-Ettinger (MLE) treatment process. Pretreatment headworks features fine screens, Eutek Headcell grit removal, and screenings sluice and compactor system. UV disinfection facility features of two channels with low pressure, high intensity UV lamps in horizontal configuration.

Hefner Water Treatment Plant Expansion; Oklahoma City Water Utilities Trust; Oklahoma City, OK: *Lead Structural Engineer.* Lead structural engineer for a $40M expansion of the Hefner WTP from 75 mgd to 100 mgd. The new facilities include lime softening clarifiers, recarbonation basins and carbon dioxide solution injection system, at least eight new biologically activated carbon filters in a filter building, and a separate filter backwash building. The design, construction, and commissioning of the lime system replacement project was completed in ten months.

Brightwater Wastewater Treatment Facility Non-Process Buildings; King County; Seattle, WA: *Design Manager.* LEED TM Accredited Professional/ Design Manager for Brightwater Wastewater Treatment Facility Non-Process Buildings. Managed design of two buildings, targeted for LEED® Silver Certification. Highlighting sustainable design on the high- profile Brightwater Wastewater Treatment Facility. Coordinated with an external architect and management of the Jacobs internal design team.

Dallas Wastewater Treatment Plant; City of Dallas, OR: *Lead Structural Engineer.* Lead structural engineer for $9.8- million project to design a new treatment plant. The design included influent pumping, headworks screening, oxidation ditch aeration basin, two secondary clarifiers, ultraviolet disinfection and solids handling improvements, and their associated facilities.

Changi Water Reclamation Plant; Republic of Singapore: *Lead Structural Engineer.* Lead structural engineer for the design of a 210-mgd wastewater treatment and reclamation plant for the Republic of Singapore. The design produced 23 separate contract packages consisting of three, large diameter, deep concrete shafts; above-grade influent pump station complex; headworks facility; large liquids treatment facility; solids treatment facility; a digester facility consisting of five modified egg- shape digesters; a major electrical building; and an operations and maintenance facility. All of the facilities were designed to local Singapore building codes in conjunction with internal design standards. Responsible for overall management of the structural engineering effort and development of the structural three-dimensional/database delivery strategy. Managed the structural engineering design team in Corvallis, Oregon, and coordinated efforts among structural design staff in Corvallis, Toronto, and Singapore.

Taylor WTP; City of Corvallis, OR: *Structural Designer.* Provided structural design for the latest addition to the Taylor WTP. The upgrade project expanded the plant from 12 mgd to a 21- mgd capacity. Minor structural retrofit included upgrading the existing administration building rehabilitation for a laboratory and control room. New construction included a large masonry chemical storage building as well as several large cast-in-place concrete process structures.

Cheldelin Middle School; 509J School District; Corvallis, OR: *Structural Engineer.* Analyzed and prepared a concept level design retrofit report for Cheldelin Middle School. The retrofit concept design included analysis of the existing lateral load resisting systems within the structure. Concept level retrofit details were prepared.

Michelle Winnett

INSTRUMENTATION & CONTROLS

Michelle Winnett is experienced working on industrial control systems, both new and existing. She has trained under the supervision of many senior professional engineers to gain familiarity with instrumentation and control systems. Through multiple projects, she has gained proficiency in field equipment start-up and software troubleshooting, as well as development of design drawings and technical specifications. She has worked effectively with a wide variety of co-workers, from engineers to project managers to plant operators.

Education/Qualifications

B.S., Mechanical Engineering, Oregon State University

Years of Experience

5

Relevant Project Experience

WRF Solids Treatment Capacity Improvements; City of McMinnville, OR: *I&C Engineer.* Design of two new autothermal thermophilic aerobic digestion (ATAD) reactors and three new storage nitrification-denitrification reactors (SNDR), as well as upgrade of the headworks facility programmable logic controller (PLC).

Grants Pass WRF; City of Grants Pass, OR: *Project Engineer.* Plant overall capacity improvement and SCADA (Supervisory Control And Data Acquisition) system upgrade. Maintained panel wiring diagrams and produced as-built drawings. Programmed the plant SCADA HMI (Human Machine Interface) and provided remote support for SCADA troubleshooting. Gained familiarity with HMI development and field integration.

Riverside Park WRF; City of Spokane, WA: *Project Engineer.* Plant SCADA (Supervisory Control And Data Acquisition) system upgrade. Developed technical specifications, piping and instrumentation diagrams, and panel drawings and wiring diagrams. Programmed Allen-Bradley PowerFlex variable frequency drives and travelled onsite for field start-up. Assisted with programming the plant SCADA HMI and PLCs (Programmable Logic Controllers). Gained experience with SCADA software development, field VFD integration and troubleshooting, and developing design documents.

Goodyear WTF; City of Goodyear, AZ: *Project Engineer.* Design and construction of a new water treatment facility. Developed technical specifications. Worked full time onsite providing engineering support for commissioning. Assisted with programming the plant SCADA HMI and PLCs during software development. Gained experience with SCADA software development, field instrumentation, PLC, and VFD integration and troubleshooting, and developing design documents.

Education/Qualifications

B.S., Electrical Engineering, Oregon State University

Certifications/Training

- ✓ Professional Engineer: Oregon (No. 71826PE); Washington (No. 52587); California (No. 21673); Maryland (No. 35052); Rhode Island (No. 10127); Hawaii (No. 15786)
- ✓ LEED Accredited Professional: 2003 (LEED AP™)

Years of Experience

19

Ryan Harbert, PE, LEED AP

ELECTRICAL ENGINEER

Ryan Harbert has 19 years of experience working on a variety of projects, including public and private facilities design, water and wastewater treatment plants, and lighting systems for airports. He provides detailed electrical design for required facility systems with his primary responsibility for delivery of the electrical project work deliverables (drawings, specifications, and reports as required). Additionally, Ryan is the technology leader in photovoltaic power systems, including technical specification coordinator for the firm's master specification on grid-tied photovoltaic systems, and completion of North American Board of Certified Energy Practitioners certification training for grid-direct solar electric facilities.

Relevant Project Experience

Durham AWWTF Cogeneration and Brown Grease Facilities; Clean Water Services; Washington County, OR: *Lead Electrical Engineer.* Performed electrical design for new facilities at the Durham AWWTF. Cogeneration uses digester and natural gas and is sized to provide the majority of plant electricity on an annual basis. Project included new unit substation with paralleling switchgear, and all motor control equipment required to support the cogeneration, gas handling, and brown grease facility processes.

Durham AWWTF Phase 5B1 Headworks Improvements; Clean Water Services; Washington County, OR: *Lead Electrical Engineer.* Performed all electrical design for modifications and expansion of an existing headworks facility. New facilities and processes included influent screens, washer compactors, odor control, and modified grit classifiers. Electrical improvements included new outdoor medium voltage switchgear, site distribution and duct banks, redundant 13.2kV-480V unit substations and a main-tie-main motor control center.

Durham AWWTF Phase 5D1 Preliminary Solids Handling Modifications; Clean Water Services; Washington County, OR: *Lead Electrical Engineer.* Electrical designer for solids handling modifications. Work included modifications to various existing MCCs to support process improvements (new sludge grinders, gas booster, and electrically actuated valves) and considerations for NEC hazardous/classified areas.

Hillsboro Wastewater Treatment Facility Aeration Basin Modifications; Clean Water Services; Washington County, OR: *Lead Electrical Engineer.* Electrical designer for secondary process improvements. Work included expansion of existing MCCs, new air compressors, new high speed turbo blower, new mixers, and electrically actuated valves.

Wilsonville Wastewater Treatment Plant (WWTP) Improvements; City of Wilsonville, OR: *Lead Electrical Engineer.* Performed all electrical design for modifications and expansion of the existing treatment plant. New or modified facilities and processes included a new headworks facility (with influent screens and washer compactors) odor control, secondary clarification, UV disinfection, disk filtering, upgrading and expanding existing aeration basins and secondary process facility (including high speed turbo blowers), and a new dewatering and drying facility (with dryer system and centrifuges). Electrical work included a new service established with Portland General Electric, "smart" networked motor control centers, two standby generators, medium and low voltage distribution design, security and fire alarm systems, and National Fire Protection Association (NFPA) 820 hazardous area analysis.

King County Department of Natural Resources and Parks; Water Treatment Division; King County, WA: *Renewable Energy Consultant.* Developed conceptual ground photovoltaic array layouts at two County wastewater plants including siting considerations, maintenance access, row spacing, shading issues, recommended tilt angle for maximum annual energy production, cost estimates, power production estimates, and electrical interconnection details.

Columbia Boulevard Wastewater Treatment Plant; City of Portland Bureau of Environmental Services (BES); Portland, OR: *Lead Electrical Engineer.* Performed all electrical design for retrofit and upgrade of an existing, unused screening facility. Project involved complete gutting of the existing building and installation of a new screening process. Project also included a new biofilter and upgrades to odor control equipment. Major design components were automated screens and washer/compactors, a standby generator, new control system, and National Fire Protection Association (NFPA) 820 hazardous area analysis.

Secondary Process Improvements Project; Columbia Boulevard WWTP, City of Portland BES; Portland, OR: *Electrical Quality Control Engineer.* Performed design review and oversight, and some detailed design for retrofit and upgrade of existing secondary process facilities. Project involved modifying existing motor control centers, wiring for new and replaced equipment, lighting, and wiring for power, control, and instrumentation.

Scott Water Treatment Plant Upgrade; McMinnville Water and Light; McMinnville, OR: *Lead Electrical Engineer.* Performed all electrical design for retrofit and upgrade of an existing water plant. New facilities included filters, a clearwell, and a new chemical building. Existing control building and filters were also upgraded. A new electrical service was designed for the plant, along with a standby generator. The project used a database to enhance quality and provide a means to use in-house automation tools, such as automatically generated one-line diagrams, panelboard schedules, and a complete circuit and raceway schedule.

Todd Cotten, PE

GEOTECHNICAL ENGINEER

As a senior geotechnical engineer, Todd Cotton has worked on more than 50 conveyance system, water, and wastewater treatment projects, with expertise in managing complex geotechnical programs and design projects. His experience includes a variety of design and construction projects, including large water and wastewater treatment facilities, water reservoir tanks, medium to large diameter pipelines, highway expansion, auger boring, horizontal directional drilling, landslide investigation and stabilization. Todd's construction management roles include work on numerous challenging geotechnical sites, water/wastewater treatment plants, roadways, bridges, pipelines, braced excavations, ground improvement, and trenchless pipeline installations.

Education/Qualifications

M.S., Engineering/ Geotechnical Engineering, Colorado State University

B.S., Civil Engineering, Colorado State University

Certifications/Training

- ✓ Professional Engineer: Oregon (No. 58496); Washington (No. 55243); Alaska (No. CE-110522); Virgina (No. 0402058342)

Years of Experience

26

Relevant Project Experience

Wastewater Reclamation Facility Expansion; McMinnville, OR: *Geotechnical Engineer.* Developed geotechnical exploration plan and conducted geotechnical analysis for design and construction of $11M secondary expansion of this treatment facility. Geotechnical challenges included the presence of deep deposits of potentially liquefiable silt, sand, and silty sand. An initial evaluation of liquefaction and lateral spread potential suggested that ground improvement beneath the proposed facilities would be required to limit seismically induced settlement and lateral spread to acceptable levels. A site-specific seismic analysis with development of site-specific ground response was performed to refine the evaluation of seismically induced liquefaction and lateral spread. The analyses allowed for design and construction of Orbals and clarifiers without ground improvement, which resulted in an estimated cost savings of approximately $3M.

Facilities Pipeline Project; Portland Water Bureau; Portland, OR: *Geotechnical Task Lead.* Geotechnical lead for the field exploration program for approximately 2.1 miles of 72-inch diameter raw water pipeline that includes three trenchless crossings, one 1,200-foot-long tunnel, and approximately 4.3 miles of 66-inch diameter finished water pipeline. The geotechnical field exploration was completed using geophysical survey, seismic cone penetrometer probes, sonic and mud-rotary drilling, and test pits . It was complete along a continuous pipeline corridor with many landowners opposing the project. Planning for the exploration included a significant public outreach program. The results of exploration process garnered high praise from the client for the ways in which landowner and community opposition was mitigated. Also, geotechnical lead for the geotechnical and seismic design of the 4.3 miles of finished water pipeline and associated intertie facility.

Pipeline Main 5.0 Segment; Willamette Water Supply Program; Beaverton, OR: *Lead Geotechnical Engineer.* Project includes the evaluation and design of approximately 7.5 miles of 66-inch and 36-inch diameter welded steel pipeline as part of PLM 5.1, 5.2, and 5.3 segments of the Willamette Water Supply Program. Led a multi-firm effort to plan, coordinate, and complete a large geotechnical field exploration program. Managed the field program and assisted with permitting and discussions with landowners to obtain right-of-entry agreements. The project involves one segment of trenchless pipe installation beneath an existing bridge and drainage. The project requires a detailed evaluation of seismic design requirements with the level of service goal for the pipeline to remain fully operational following a 2,500-year return interval seismic event. Participated in a seismic design working group to review and set seismic design criteria for the project and to review seismic

designs completed by other consulting teams for other segments of the project.

Kinsman Road Pipeline; Willamette Water Supply Program; Wilsonville, OR: *Lead Geotechnical Engineer.* Led the geotechnical evaluation and design of 3,000 feet section of 66-inch diameter water supply pipeline. The pipeline is designed to remain operational following the 2,500-year return interval seismic event. Designing to this event involved careful evaluation of liquefaction susceptibility of underlying soil, assessment of static and seismic slope stability and flow failure mechanisms, and consideration for other seismic risks such as fault rupture and impacts from nearby utilities that could be damaged during a seismic event. The project involved one segment of trenchless pipe installation completed using open-face pipe jacking to pass beneath an existing 24-inch diameter water supply pipeline. The design was completed on a compressed design schedule.

Goodyear Water Treatment Facility and Raw Water Pipeline; City of Goodyear, AZ: *Geotechnical Task Lead.* Led a multiple firm geotechnical field investigation and provided engineering evaluations and design recommendations for 6.8 miles of 24-inch and 28-inch raw water pipe, 1.8 miles of 24-inch finished water pipeline, a raw water pump station, and an 8 MGD treatment facility as part of a progressive design-build-operate (DBO) delivery. The raw water pipeline included a major river crossing evaluated as a trenchless tunnel installation and installation of a horizontal directional drill (HDD) crossing of the El Mirage and Elwood Road intersection.

I-5 Undercrossing; City of Tualatin, OR: *Geotechnical Task Lead.* Lead geotechnical engineer for evaluation of 250-foot-long water transmission pipeline undercrossing of Interstate 5. Planned and directed field exploration program and evaluated various trenchless installation methods. Specific challenges encountered included variation in the depth to bedrock across the proposed alignment, variation in density and strength of ground along the profile which ranges from basalt bedrock to very soft clay, presence of debris and cobbles in the soil profile, relatively shallow depth to groundwater, and limited clearance between bedrock and the I-5 pavement section. Project role included development of drawings, specifications, Geotechnical Baseline Report, and tender documents for construction. The Geotechnical Baseline Report included baseline conditions of groundwater.

Oregon Pipeline Project; LNG Development Company, LLC, and Oregon Pipeline Company, LLC (doing business as Oregon LNG); Warrenton, OR: *Geotechnical Task Lead.* Lead geotechnical engineer for pipeline corridor assessment and evaluation of geologic hazards for 87 miles of proposed 36-inch diameter natural gas pipeline running between a proposed terminal in Warrenton, Oregon and the City of Woodland, Washington. Managed and supervised geotechnical field explorations at 11 proposed river, levee, and highway crossings where HDD installation methods would be used to construct the proposed pipeline.

Deborah Galardi | Subconsultant

SDC & RATE DEVELOPMENT

Education/Qualifications

B.S., Economics, University of Oregon

Certifications/Training

✓ Woman Business Enterprise (Oregon Certification #621)

Years of Experience

30

Firm:

Galardi Rothstein Group

Deborah Galardi of Galardi Rothstein Group is an expert in infrastructure financial analysis, with expertise in water, sewer, and drainage rate setting, with 30 years of experience in North America. She is the primary author of Water Environment Federation Manual of Practice: *Financing and Charges for Wastewater Systems* and Serves on the International Water Association's (IWA) Management Committee for Economics and Statistics. Deborah has local knowledge of several municipal wastewater systems from prior rate study work.

Relevant Project Experience

Wastewater Rate Studies; City of McMinnville, OR: *Financial Consultant.* Deborah has completed numerous wastewater rate studies for the City of McMinnville, including development of a long-term financial plan, wastewater rates and SDCs based on the projected revenue requirements and approaches selected by a council-appointed task force. Galardi Consulting also assisted the city in the evaluation of alternative wet weather treatment programs. A funding strategy was developed for the capital improvements, and rate and SDC impacts were analyzed. Galardi Consulting also conducted a rate equity review study for the city, and recently updated the city's wastewater system financial plan.

Wastewater and Stormwater Cost-of-Service Rate and System Development Charge Study; City of Portland, OR: *Project Manager.* Deborah is serving as project manager for a wastewater and stormwater cost-of-service rate and system development charge study for the City of Portland. Deborah is leading the effort to modernize the utility rate models, rate structures, and system development charges to balance the city's current objectives of revenue adequacy, equity, and affordability.

Water, Wastewater and Drainage Utility; City of Salem, OR: *Financial Consultant.* Since 1998, Deborah has served as Financial Consultant of Record for the City of Salem's water, wastewater and drainage utility. During that time, Deborah has conducted numerous financial analyses, including development of long- term financial plans, evaluation of alternative rates and charges for the regional water and wastewater systems, and completion of bond feasibility and system development charge (SDC) studies. Deborah also assisted the city in implementing stormwater rates and SDC.

Comprehensive SDC Study; City of Eugene, OR: *Project Manager.* Deborah completed a comprehensive SDC study for the City of Eugene. The project included evaluation of methodological alternatives for each infrastructure system: parks, local wastewater, transportation, and stormwater. She is currently working with the City to update wastewater SDC methodology, including development of fee schedules based on dwelling unit size.

Wastewater System Financial Planning, Rate, and System Development Charge Study; City of Albany, OR: *Project Manager.* Deborah was project manager for a wastewater system financial planning, rate, and system development charge study for the City of Albany. She assisted the City in the development of utility system financial policies and a long-term financial plan for the wastewater system that included evaluation of different financing options and rate strategies for a new wastewater treatment plant. She recently worked with the City to update its both the wastewater and water SDCs.

SDC Support; Metropolitan Wastewater Management Commission; Eugene/Springfield; OR: *Task Lead.* For the Metropolitan Wastewater Management Commission of Eugene/Springfield, Deborah has developed SDC methodologies and provided expert witness testimony on the methodology and charges. Deborah also assisted MWMC in revising the SDC structure to address housing affordability concerns and has provided rate modeling assistance to improve user fee updating.

Wastewater Cost-of-Service Rate Study; City of Corvallis, OR: *Task Lead.* For the City of Corvallis, Deborah was the task lead for a wastewater cost-of-service rate study. Technical tasks included development of capital and operating cost allocations to wastewater service characteristic, development of user characteristics, and a plant balance analysis. Policy issues evaluated included allocation of infiltration and inflow and industrial pretreatment program costs to customer classes.

Wastewater Financial Planning Study; City of Gresham, OR: *Financial Consultant.* For the City of Gresham, Deborah has conducted comprehensive water and wastewater financial planning and cost of service studies for the City of Gresham. The wastewater study included development of a long-range financial plan, evaluation of customer usage characteristics (including analysis of class average strength characteristics), allocation of revenue requirements to cost parameters, and evaluation of alternative rate structures.

SDC Study; City of Lebanon; Lebanon, OR: *Project Manager.* Deborah completed a comprehensive SDC study for the City of Lebanon. The study developed methodologies and fees for water, wastewater, stormwater, parks, and transportation. The analytical tasks of the study include capacity analysis, cost valuation and allocation, and fee schedule development. The study recommendations were development in conjunction with a Citizen Advisory Committee.

SDC Study; Metro; Portland, OR: *Project Manager.* Deborah was project manager for an SDC study for Metro. The study focused on development of model approaches to SDC calculation and assessment that reflect 'real' costs of development, giving consideration to development type, location, and other characteristics that may influence the cost of service. The study included research of SDC methodologies from communities across North America and development of recommendations for implementation by local jurisdictions.

APPENDIX B - EXCEPTIONS

Per requirements of the RFP for the subject project and submitted March 24, 2022, we requested the following changes to contract terms. Similar language changes have been successfully incorporated into recent contracts between the City and Jacobs.

City of McMinnville, Oregon – RFP 2022-5

Propose under Jacobs Engineering Group Inc. entity (a Delaware corporation)

See redlines

Section 13. Indemnity 13.1. Indemnification. Consultant acknowledges responsibility for liability arising out of the performance of this Agreement, and shall defend, indemnify, and hold the City harmless from any and all liability, settlements, loss, costs, and expenses in connection with any action, suit, or claim ~~resulting or allegedly resulting from~~ to the extent caused by Consultant's negligent acts, omissions, errors, or willful or reckless misconduct pursuant to this Agreement, ~~or from Consultant's failure to perform its responsibilities as set forth in this Agreement.~~ The review, approval, or acceptance by the City, its Project Manager, or any City employee of documents or other work performed, prepared, or submitted by Consultant shall not be considered a negligent act, error, omission, or willful misconduct on the part of the City, and none of the foregoing shall relieve Consultant of its responsibility to perform in full conformity with the City's requirements, as set forth in this Agreement, and to indemnify the City as provided above and to reimburse the City for any and all costs and damages suffered by the City as a result of Consultant's negligent performance of this Agreement, negligent failure of performance hereunder, violation of state or federal laws, or failure to adhere to the standards of performance and care described in Subsection 14.2. Consultant shall defend the City (using legal counsel reasonably acceptable to the City) against any claim that alleges negligent acts, omissions, errors, or willful or reckless misconduct by Consultant. As used herein, the term "Consultant" applies to Consultant and its own agents, employees, and suppliers, and to all of Consultant's subcontractors, including their agents, employees, and suppliers.

13.2. Standard of Care. In the performance of the Services, Consultant agrees to use ~~at least~~ that degree of care and skill exercised under similar circumstances by reputable members of Consultant's profession practicing in the Portland metropolitan area. Consultant will re-perform any Services not meeting this standard without additional compensation. Consultant's reperformance of any Services, even if done at the City's request, shall not be considered as a limitation or waiver by the City of any other remedies or claims it may have arising out of Consultant's failure to perform in accordance with the applicable standard of care of this Agreement and within the prescribed timeframe.

14.2. Primary Coverage. The coverage provided by these policies shall be primary, with the exception of Workers Compensation and Professional Liability, and any other insurance carried by the City is excess. Consultant shall be responsible for any deductible amounts payable under all policies of insurance. If insurance policies are "Claims Made" policies, Consultant will be required to maintain such policies in full force and effect throughout any warranty period.

Section 19. Property of the City

19.1. Originals or certified copies of the original work forms, including but not limited to documents, drawings, tracings, surveying records, mylars, spreadsheets, charts, graphs, modeling, data generation, papers, diaries, inspection reports, and photographs, performed or produced by Consultant under this Agreement shall be the exclusive property of the City to the extent that the Work Product includes notes, terms or details that have been developed by Contractor, or its consultants, in the course of their practice over the years then the Contractor, or its consultants, shall retain the ownership of such notes, terms, or details. and shall be delivered to the City prior to final payment. Any statutory or common law rights to such property held by Consultant as creator of such work shall be conveyed to the City upon request without additional compensation. Upon the City's written approval, and provided the City is identified in connection therewith, Consultant may include Consultant's work in its promotional materials. Drawings may bear a disclaimer releasing Consultant from any liability for changes made on the original drawings and for reuse of the drawings subsequent to the date they are turned over to the City.

19.2. Consultant shall not be held liable for any damage, loss, increased expenses, or otherwise, caused by or attributed to the reuse by the City or its designees of all work performed by Consultant pursuant to this Agreement without the express written permission of Consultant. 19.3 Reuse or modification of the Contractor's Work Product in any manner, or authorization of reuse or modification by others, without the Contractor's professional involvement will be at the user's sole risk and without liability to the Contractor.

21.7. Legal Action/Attorney Fees. If a suit, action, or other proceeding of any nature whatsoever (including any proceeding under the U.S. Bankruptcy Code) is instituted in connection with any controversy arising out of this Agreement due to Consultant's negligence or to interpret or enforce any rights or obligations hereunder, the prevailing party shall be entitled to recover attorney, paralegal, accountant, and other expert fees and all other fees, costs, and expenses actually incurred and reasonably necessary in connection therewith, as determined by the court or body at trial or on any appeal or review, in addition to all other amounts provided by law. If the City is required to seek

legal assistance to enforce any term of this Agreement, such fees shall include all of the above fees, whether or not a proceeding is initiated. Payment of all such fees shall also apply to any administrative proceeding, trial, and/or any appeal or petition for review

21.11. Time of the Essence. Time is expressly made of the essence in the performance of this Agreement in accordance with a mutually agreed upon schedule.

Contact:
Joshua Koch, PE, Project Manager
1100 NE Circle Blvd., Suite 300
Corvallis, OR 97330
T | 541.768.3689
E | joshua.koch@jacobs.com

Jacobs

Challenging today.
Reinventing tomorrow.

City of McMinnville
Information Services
600 NE Evans Street
McMinnville, OR 97128
(503) 434-7385
www.mcminnvilleoregon.gov

STAFF REPORT

DATE: **September 6, 2022**
TO: **Mayor and City Councilors**
FROM: **Scott Burke, IS Director**
SUBJECT: **Cyber Security Insurance Contract 22/23**
STRATEGIC PRIORITY & GOAL:

COMMUNITY SAFETY & RESILIENCY
Proactively plan for & responsively maintain a safe & resilient community.

OBJECTIVE/S: Lead and plan for emergency preparedness

Report in Brief:

Staff seeks approval of the City's Cyber Liability coverage for FY23.

Background:

A cyber insurance policy helps an organization pay for any financial losses they may incur in the event of a cyberattack or data breach. It also helps cover any costs related to the remediation process, such as paying for the investigation, crisis communication, and other related legal services.

Cyber insurance is increasingly hard to find and meet qualifications for coverage. With the volatility of the Cyber market and significant increase in claims, our previous insurer HDI Global Insurance has exited the market, leaving very few options for municipalities.
The City's current cyber security position qualifies for liability coverage with additional coverage becoming active as additional security procedures are implemented.

Attachments:

1. Redacted Confirmation of Coverage from Hagan Hamilton
2. Resolution 2022-59

Fiscal Impact:

Total contract amount for FY 2023 is $27,765.01.

Recommendation:

Staff recommends approval of the Cyber Security Insurance contract.

Brown&Riding

CONFIRMATION OF COVERAGE # 1162337

PRODUCER: Hagan Hamilton Insurance
448 South East Baker Street
McMinnville, OR 97128

ATTENTION: Gary Eastlund

INSURED: City of McMinnville
230 NE Second Street
Mcminnville, OR 97128

TERM: 08/19/2022 - 08/19/2023

COMPANY: Obsidian Specialty Insurance Company

POLICY #: [redacted]

Confirmation of Coverage expires on 10/18/2022 unless cancelled or replaced by the policy.

TERMS: Cyber Liability - [redacted]

All terms and conditions per carrier policy, policy forms, endorsements, exclusions and notices.

SUBJECTIVITIES: 1. [redacted]

REMARKS: This insurance was procured and developed under the Oregon Surplus Lines laws. It is NOT covered by the provisions of ORS 734.510 to 734.710 relating to the Oregon Insurance Guaranty Association. If the insurer issuing this insurance becomes insolvent, the Oregon Insurance Guaranty Association has no obligation to pay claims under this insurance. - Brown and Riding Insurance Services, Inc SL License #100169869

Annual Premium	$	25,781.00	
Company fee	$	350.00	Fully retained at inception
Broker fee	$	1,000.00	Fully retained at inception
OR Surplus lines tax	$	542.62	
OR Surplus line service charge	$	10.00	
OR Fire marshal tax	$	81.39	
Total Gross Amount	**$**	**27,765.01**	

This insurance was procured and developed under the Oregon Surplus Lines laws. It is NOT

covered by the provisions of ORS 734.510 to 734.710 relating to the Oregon Insurance Guaranty Association. If the insurer issuing this insurance becomes insolvent, the Oregon Insurance Guaranty Association has no obligation to pay claims under this insurance. - Brown and Riding Insurance Services, Inc SL License #100169869

Payment due in 20 days.

0.0% MINIMUM RETAINED PREMIUM IN THE EVENT OF CANCELLATION. NO FLAT CANCELLATIONS.

Please review carefully. Coverages provided may differ from those requested.

This Confirmation is intended for use as evidence that insurance as described has been effected, against which a Policy or Policies will be issued. This Confirmation and the insurance effected by it are subject to all terms, conditions and provisions of the Policy or Policies to be issued and in the event of any inconsistency therewith, the terms, conditions and provisions of the Policy or Policies shall prevail.

Brown & Riding has the right to cancel any binder or policy in accordance with the cancellation provisions of such binder or policy. When coverage is bound by Brown & Riding, a charge will be made in accordance with the policy terms and upon binding, all fees for the full policy term will be fully earned. Producer guarantees payment of premium for risks placed through Brown & Riding. If Producer does not make timely payment of any sums due Brown & Riding, then Brown & Riding may, without limitation of other remedies, cancel the policy for non-payment of premium.

Brown & Riding assumes no legal obligation as to the insurance applicant, insured, or known or unknown third parties regarding the suitability, adequacy, or appropriateness of limits, terms, conditions, exclusions, and other policy features. Producer shall be responsible for disclosing to Producer's customer all Brown & Riding broker fees, other fees, and charges disclosed by Brown & Riding to Producer.

Producer shall hold harmless Brown & Riding, and Brown & Riding shall hold harmless Producer, from any and all of the respective negligent or wrongful acts, omissions, or conduct that result in a financial or other obligation to the other.

In the event of a dispute between Brown & Riding and Producer, the prevailing party shall be entitled to recover its attorneys' fees, costs, and related litigation expenses in addition to any other recovery.

While we do encourage policyholders to submit all claim notices directly, Brown & Riding remains happy to assist throughout the reporting and adjustment process. Please feel free to contact us at claimdesk@brcins.com with any claim-related questions, requests, or concerns.

The responsibility for the accuracy of the information set forth in any certificate of insurance is the sole responsibility of the

person or entity which issues the certificate. Although Brown & Riding may retain copies of certificates of insurance forwarded to us, Brown & Riding does so strictly without prejudice as to their accuracy. Neither the insurers, their representatives, nor Brown & Riding will be responsible for any liability resulting from your issuance any certificate of insurance. We also draw your attention to the fact that unless the policy is physically endorsed, the issuance of a certificate does not amend, extend, or alter the coverage afforded by the policy or change the person(s) or entities to whom such coverage is afforded under the policy.

Moreover, neither the underwriters, their representatives, nor Brown & Riding will be responsible for any liability resulting from the issuance of any unauthorized endorsement or the issuance of an endorsement which has been authorized by the insurers but where the authorized wording has been amended or revised in any way, without the prior written approval of the insurers.

By binding this coverage, the Retailer confirms that the prospective insured has (1) been advised of the right to receive policy documents in paper format; and (2) has consented to receive all such documents electronically.

Regards,

Tina Charles

RESOLUTION NO. 2022-59

A Resolution Approving Entering into a Contract for Cyber Security insurance with Hagan Hamilton Insurance.

RECITALS:

Whereas, the City of McMinnville is aware of the rising need to have a Cyber Liability Insurance policy in place to protect the City from cyber-attacks and ransomware; and

Whereas, Hagan Hamilton currently provides for the City's general liability insurance; and

Whereas, the Mayor and City Council of the City of McMinnville, Oregon, have determined that it is both wise and expedient to authorize an agreement with Hagan Hamilton to procure Cyber Security Insurance at a cost of 27,765.01.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMINNVILLE, OREGON, as follows:

1. That entry into a contract between the City of McMinnville and Hagan Hamilton is hereby approved.
2. That this resolution shall take effect immediately upon passage and shall continue in full force and effect until modified, revoked, or replaced.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 13th day of September, 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 13th day of September 2022.

_____
MAYOR

Approved as to form:

_____
City Attorney

Attest:

_____
City Recorder

City of McMinnville
PLANNING

City of McMinnville
Planning Department
231 NE Fifth Street
McMinnville, OR 97128
(503) 434-7311
www.mcminnvilleoregon.gov

STAFF REPORT

DATE: **September 13, 2022**
TO: **Mayor and City Councilors**
FROM: **Heather Richards, Planning Director**
SUBJECT: **PUBLIC HEARING: (Docket G 7 – 21), Consideration of the Planning Commission recommendation to adopt the *Three Mile Lane Area Plan* as a Supplemental Document to the City of *McMinnville Comprehensive Plan*, and amending the Comprehensive Plan, Volume II, Chapter VI, Transportation System, to add a proposal to amend the Comprehensive Plan Map and Transportation System Plan consistent with the *Three Mile Lane Area Plan*.**

STRATEGIC PRIORITY & GOAL:

GROWTH & DEVELOPMENT CHARACTER
Guide growth & development strategically, responsively & responsibly to enhance our unique character.

OBJECTIVE/S: Strategically plan for short and long-term growth and development that will create enduring value for the community

---

Report in Brief:

This is a staff report to support the deliberation of the City Council on the McMinnville Planning Commission recommendation to adopt the ***Three Mile Lane Area Plan and its Appendices ("Plan")*** as a supplemental document to the *McMinnville Comprehensive Plan* and to amend the *McMinnville Comprehensive Plan*, *Volume II*, *Chapter VI, Transportation System*, to add a proposal to amend the *McMinnville Comprehensive Plan Map* and *McMinnville Transportation System Plan* consistent with the *Three Mile Lane Area Plan*.

The Planning Commission voted unanimously to recommend adoption of the ***Plan*** at their meeting on March 17, 2022, to the McMinnville City Council after hosting two nights of public hearings. The City Council elected to also host a public hearing prior to their consideration and the first City Council public hearing was conducted on May 10, 2022. That public hearing was continued to June 14, 2022, which was again continued to July 26, 2022. At their July 26 City Council meeting, the City Council closed the public hearing but kept the public record open until August 15 for additional written testimony. That additional written testimony was provided to the City Council and has been entered into the public record. At their meeting on July 26, 2022, the City Council elected to deliberate on September 13, 2022.

Attachments:
- Attachment A: Three Mile Lane Area Plan (September 13, 2022)
- Attachment B: Memorandum – Review of Suggested Amendments from Public Testimony
- Attachment C: Memorandum – Final List of Public Testimony
- Attachment D: Public Engagement Record

The entire public record for Docket G 7 – 21 can be found at: G 7-21 - *Three Mile Lane Area Plan* (3MLAP) Comprehensive Plan Amendment | McMinnville Oregon.

As a reminder there are two actions that are recommended by the Planning Commission to the City Council.

1.) *Adopt the Three Mile Lane Area Plan and its appendices as a supplemental document to the McMinnville Comprehensive Plan.*

> The *Three Mile Lane Area Plan* includes the final plan document (Plan) and five appendices:
>
> *Three Mile Lane Area Plan*
> - Appendix A: Public Involvement
> - Appendix B: Existing Conditions
> - Appendix C: Case Study Report
> - Appendix D: Evaluation and Screening
> - Appendix E: Implementation
>
> These documents can be found on the project website at: G 7-21 - *Three Mile Lane Area Plan* (3MLAP) Comprehensive Plan Amendment | McMinnville Oregon.

2) *Amend the Comprehensive Plan, Volume II, Chapter VI, Transportation System, to add a proposal.after policy 132.23.00 (below) that reads as follows (on the next page):*

132.23.00 The McMinnville Transportation System Plan shall be updated as necessary to remain consistent with: (a) the city's land use plan; (b) regional and statewide plans; and (c) the applicable local, State, and federal law. Ord. 4922, February 23, 2010)

> *20.05 The comprehensive plan map amendments and any associated rezones consistent with the 3MLAP could be initiated by the City or property owners through future map amendment applications, at which time any necessary changes to the TSP would need to be made. Until the comprehensive plan map amendments are adopted for individual properties, the properties would continue to be subject to the use provisions of current Comprehensive Plan map and zoning map designations and provisions of any property-specific PD overlay zones. Those properties would still be subject to any new development standards of the new Three Mile Lane Overlay Zone.*

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The background of this staff report provides the history of the plan development and the dialogue that occurred at the planning commission and at the City Council public hearing, reflecting information provided in earlier staff reports. The discussion section of this staff report is new for the September 13 City Council deliberation. It starts on page 33 of this staff report.

Background:

The ***Three Mile Lane Area Plan*** (3MLAP) has been developed over the past three years in collaboration with ODOT and a local Project Advisory Committee. It was funded by a Transportation Growth Management grant. A consultant team comprised of Angelo Planning Group, David Evans and Associates, Inc., Leland Consulting Group and Walker Macy worked with the project management team and the project advisory committee to develop the plan. ODOT served as the project manager and contract manager.

Area plans are general guidance documents for how land uses, and public facilities will serve the community in the future and interact with each other in a designated area. It is a high-level planning document meant to provide guidance to other more specific planning processes, such as public utility plans, parks, and open space plans, etc. An Area Plan is not a development plan and is not representative of planned private development projects in the area.

The Three Mile Lane area is a unique district in the southeast portion of the City of McMinnville. The area contains approximately 1,340 acres of land with a variety of existing land uses and several large vacant parcels. The *Three Mile Lane Area Plan* is intended to create an implementable vision for the area's future land uses and multi-modal transportation system.

As an Area Plan, the *Three Mile Lane Area Plan* shall serve as a guiding document for land uses and public facilities in the delineated area of this plan. Specific standards for development will be identified in McMinnville's Master Plans and Municipal Code. Public facility plans will be updated to reflect the new comprehensive plan designations in the area.

The Planning Commission hosted a public hearing on January 20, 2022, and February 17, 2022, closing the public hearing on February 17, 2022, and then deliberated on March 17, 2022, where they elected to recommend adoption of the ***Plan*** to the McMinnville City Council unanimously.

The Planning Commission amended the Plan in two areas:

1) Amended the language on page 17, Great Neighborhood Principle #11 to read, "Allow for a mix of housing forms and types that serve a variety of household incomes and respect the current character of Three Mile Lane."

2) Amended page 50 of the ***Plan*** to add a provision for the future evaluation and consideration of a bicycle/pedestrian overpass on Highway 18 when the need and opportunity arose.

Per Section 17.72.130, the Planning Commission rendered a decision to recommend the proposed comprehensive plan amendments to the McMinnville City Council. On April 12, per Section 17.72.130(2)(d), the McMinnville City Council made a motion to host a public hearing on May 10, 2022. The public hearing was noticed in the News Register on Tuesday, May 3, 2022.

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17.72.130 Public Hearing Process. Public hearings shall be conducted as per requirements of McMinnville Ordinance No. 3682, as amended;

A. *A staff report shall be submitted to the review body, and shall be made available to the public at least seven (7) days before the date of the public hearing. Any public hearing may be continued to a specific date, time and location by oral announcement of that specific date, time, and location prior to the hearing being recessed. This announcement is sufficient notice to all applicants, adverse parties, and interested persons, and no further notice is required.*

B. *Legislative hearings: Within 45 days following the public hearing on a comprehensive plan text amendment or other legislative matter, unless a continuance is announced, the Planning Commission shall render a decision which shall recommend either that the amendment be approved, denied, or modified:*

1. *Upon reaching a decision the Planning Commission shall transmit to the City Council a copy of the proposed amendment, the minutes of the public hearing, the decision of the Planning Commission, and any other materials deemed necessary for a decision by the City Council;*
2. *Upon receipt of the decision of the Planning Commission, the City Council shall:*
   a. *Adopt an ordinance effecting the proposed change as submitted by the Planning Commission, or*
   b. *Adopt an ordinance effecting the proposed change in an amended form, or*
   c. *Refuse to adopt the amendment through a vote to deny, or*
   d. *Call for a public hearing on the proposal, subject to the notice requirements stated in Section 17.72.120(D).*

History of the Planning Process:

The *Three Mile Lane Area Planning* effort started in 2017 as part of a summer collaborative planning project with the University of Oregon (Green Cities Plan). Then in 2017, the City applied for a Transportation and Growth Management Grant from the Oregon Department of Transportation (ODOT) and the Department of Land Conservation and Development (DLCD) to conduct an area planning process for the Three Mile Lane Area. The grant was awarded. A scope of work was developed in partnership with ODOT and DLCD in early 2018 and consultants were hired in the summer of 2018.

The scope of work was based on a land-use and transportation study of approximately 1340 acres of land currently within the city limits on both the north and south side of Highway 18 from the eastern entrance of the city by the McMinnville Airport to the Yamhill River Bridge. The project has immense potential to transform the Three Mile Lane Area for both current and future residents and businesses. It provides the opportunity for the City to be much more efficient with land-uses, allowing for higher density housing development and job creation in the area. The plan will also help the City work towards reducing greenhouse gas emissions by providing more amenities in close proximity to residential neighborhoods in this area as well as commercial amenities that city residents drive to other cities to access. The plan allows for much-needed grocery stores in a residential area that is currently a food desert. The plan identifies opportunities for more off-road trails and bicycle/pedestrian connectivity throughout the designated area. The 3MLAP also highlights an opportunity for a high-density business office and industrial incubator district adjacent to the airport. And lastly, the 3MLAP creates a much stronger multi-modal connection between the Three Mile Lane Area and the rest of the City of McMinnville via the new Yamhill River Bridge and proposed nature trails to Joe Dancer Park and Galen McBee Park.

The 3MLAP has five project goals:

1. **Support and enhance the district's economic vitality and marketability.** *This plan aims to support development of significant industrial and commercial parcels within the study area, enhance existing business by diversifying goods and services available in the area, and increase tourism. Alternatives will be evaluated qualitatively for how well they address the area's development/redevelopment potential.*

2. **Provide opportunities for a complementary mix of land uses, consistent with the vision of a diverse and vibrant district.**
   The study area contains several existing residential neighborhoods, including assisted-living and manufactured home residences, as well as major employers and tourism destinations. This plan aims to provide a mix of land uses that support one another to create a unique part of the city in both and economic and environmentally sustainable way.

3. **Enhance multi-modal connections throughout the district.**
   This plan aims to create a complete, multimodal transportation network that serves the north and south side of OR 18 within the district, and that connects the business community, the hospital, residential neighborhoods, and tourism amenities to each other and to the city center. Alternatives will be evaluated through criteria measuring transportation safety and performance for all modes of travel: pedestrian, bicycle, transit, freight, and personal vehicles.

4. **Create an aesthetically pleasing gateway to the City of McMinnville.**
   The study area is a primary gateway to the City of McMinnville. Alternatives will be evaluated qualitatively for how well they provide an identity for the district, reflect McMinnville's intrinsic character, and highlight the landscape features of the district. Incorporation of sustainable features and technologies is desired.

5. **Improve the district for existing and future McMinnville residents in the area.**
   The City of McMinnville's Great Neighborhood Principles identifies amenities and facilities that should be present in all residential areas, including a variety of housing types, pedestrian and bicycle connectivity, preservation of scenic views and natural features, access to open space, and access to commercial necessities. This plan aims to support those Great Neighborhood Principles for residents in the study area by providing multi-modal connectivity, single-family, missing middle and multi-family housing, provisions for open spaces and commercial amenities, such as grocery stores, restaurants, and more.

A project advisory committee consisting of community stakeholders worked with the consultant team, ODOT and City representatives on the development of the plan

The City also hosted a summer planning class from the University of Oregon, "Green Cities" to work with neighborhood residents and other interested community stakeholders on planning charrettes and focus groups to help lay the groundwork for the planning effort prior to the official start of the 3MLAP.

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Three Mile Lane Area Plan Citizen Advisory Committee (CAC)	
Planning Commission	Lori Schanche
City Council	Zach Geary Scott Hill Wendy Stassens
Representatives of Property and Business Owners in the Study Area	Robert Banagay Paul Davis Danielle Hoffman Peter Hoffstetter Kit Johnston Stewart Kircher Chris Norville Alan Roodhouse Chris Shelby Mary Stern
Partner Agencies	Scott Cooper – MEDP Kitri McGuire – Visit McMinnville Gioia Goodrum – McMinnville Chamber of Commerce
Community Stakeholders	Courtney Cunningham Ken Denier Alan Fox Phil Frischmuth David Hayes Galen McBee

Technical Advisory Committee (TAC)	
Planning Staff	Heather Richards Jamie Fleckenstein Chuck Darnell Tom Schauer
Engineering Staff	Mike Bisset
Parks and Recreation Staff	Susan Muir
McMinnville Water and Light	John Dietz
ODOT	Michael Duncan Dan Fricke Keith Blair Dorothy Upton Jenna Berman Kristie Gladhill
DLCD	Angela Carnahan
YCTA	Cynthia Thompson

Map of Study Area

On the following page are Maps 1 and 2 showing the relationship of the Three Mile Lane area relative to the rest of the city, as well as the area's more prominent features.

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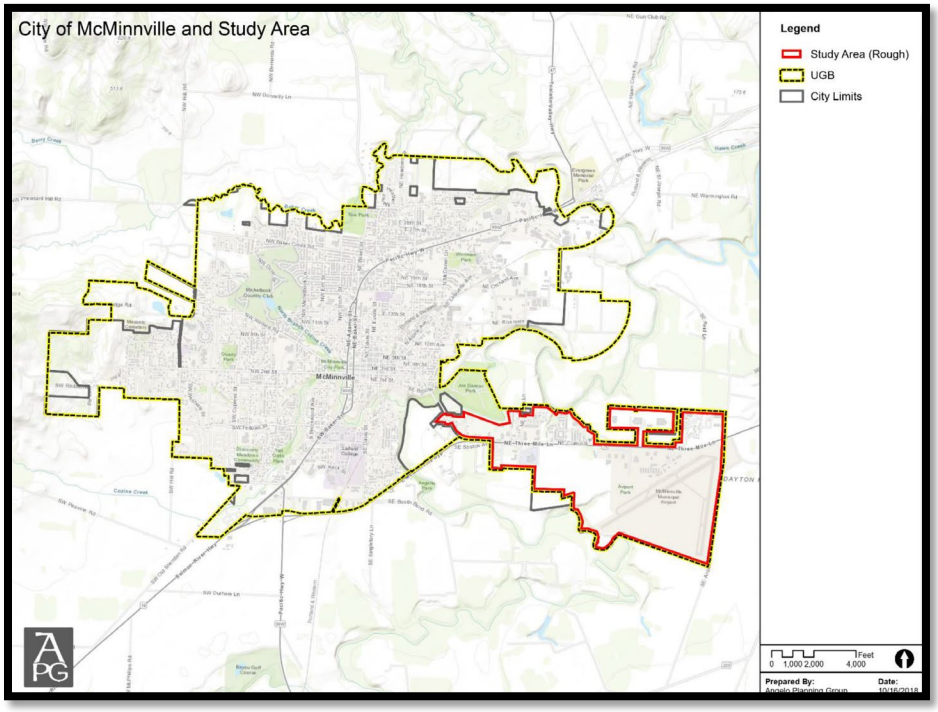
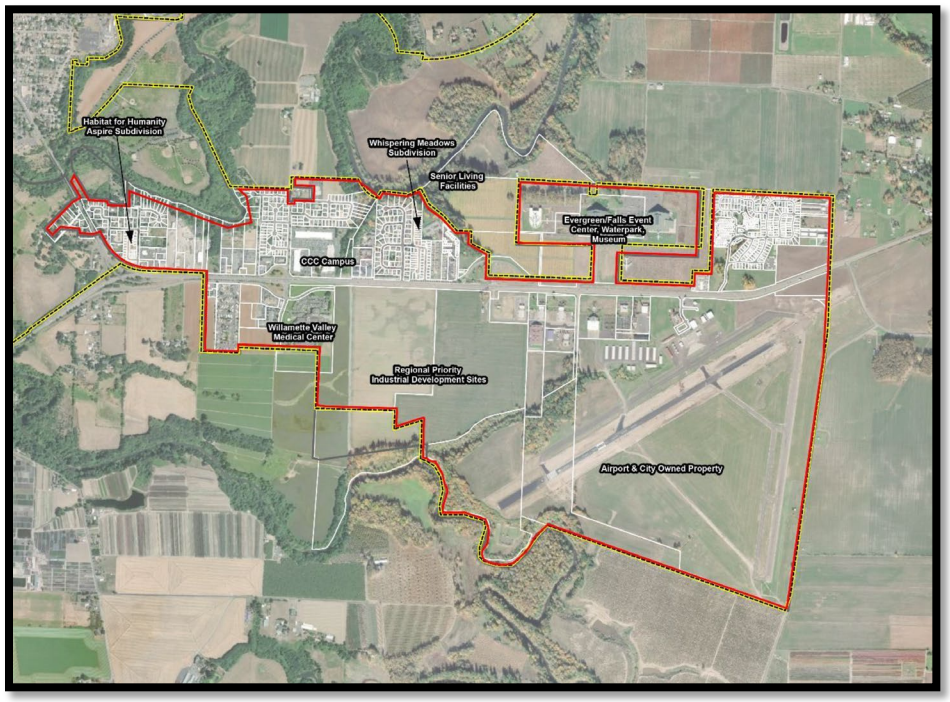


Map 1: Three Mile Lane Study Area in relationship to the city limits. The subject area is on the Southeastern side of the city.



Map 2: Three Mile Lane Study Area with Major Elements Identified.

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Citizen Involvement:

Over the course of three years, the project team conducted an extensive public engagement process utilizing a variety of tools. Public open houses, town halls, focus groups and charrettes were utilized to collect public feedback and input. (Please see Appendix A of the 3MLAP and Attachment D of this staff report).

- The City hosted three public workshops. Invitations to the public workshops were provided in both English and Spanish. Spanish invitations were distributed through the Latino Advisory Council and provided at the Virginia Garcia Clinic in the study area. Spanish translation was provided at the public workshops upon request.

- The project team hosted three focus group interviews. One of the focus groups represented organizations and agencies that served Title VI populations in the study area.

- The project team conducted two planning charrettes with community stakeholders to discuss future land-uses, needs and opportunities.

- The project team conducted two surveys during the course of the project planning period.

- The project included numerous City Council updates, which were part of the regularly scheduled McMinnville City Council meetings that were open to the public and broadcast with subtitles via McMinnville Media.

- The project team maintained a project website at www.ThreeMileLane.com.

- The project team distributed flyers and meeting invitations through the Latino Advisory Council, a network of businesses, agencies and non-profit partners serving the Latino community in McMinnville.

- The project team provided project updates and invitations to meetings and events via its social media to the community at-large and direct mailings for households in the project area.

- The project team created press releases and flyers for all public events which were advertised in local newspapers and distributed to public spaces such as the McMinnville Public Library, the McMinnville Community Center and through the McMinnville School District information portal.

- Five public meetings, all noticed and open to the public, were held in conjunction with McMinnville Planning Commission and City Council meetings.

The *Three Mile Lane Area Plan* is predicated on a "Preferred Land Use Alternative" (Figure 1) and a "Preferred Transportation Facilities Plan" (Figure 3). The preferred land use alternative represents the community vision for how this study area will develop over the next twenty years (2021-2041) to serve the community's current and future land-use needs. The preferred transportation facilities plan illustrates

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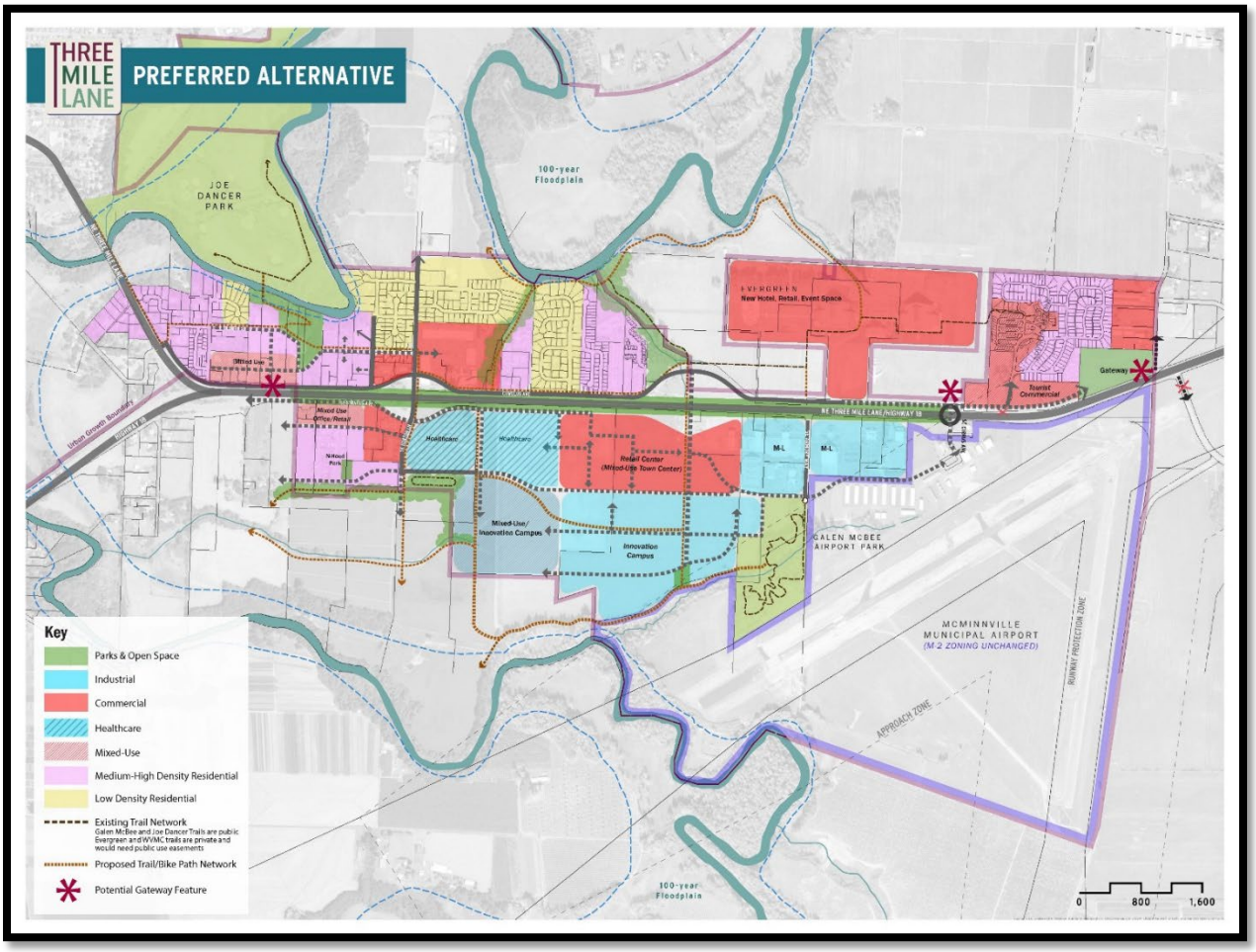
the transportation elements that will need to be implemented to ensure that the local and state transportation facilities still function at their standard of functionality as the study area develops to full buildout in 2041. This transportation facilities plan builds on the Oregon Highway 18 Corridor Refinement Plan developed in 1996 for this section of Highway 18 and identifies those elements of that plan that are necessary to maintain the throughput and functionality of Highway 18 as a state expressway and freight route.

To analyze the impact of the community land-use vision on the state and local transportation facilities in the study area, ODOT updated the Transportation Model for the City of McMinnville for this project, and then the existing land-use opportunities were analyzed for transportation compliance with the *Oregon Highway Plan* and Oregon Administrative Rules, Division 51 standards (OAR 734-051), and the proposed community vision was analyzed for transportation compliance with the *Oregon Highway Plan* and Oregon Administrative Rules, Division 51 standards (OAR 734-051).

Figure 1: Three Mile Lane Area Plan Preferred Land Use Vision for the Three Mile Lane Study Area



This is the revised land-use plan that staff entered into the record on May 10, 2022, to help clarify some misunderstandings between preferred land-uses and underlying zoning that was part of the public dialogue during the public hearing process.

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In order to enable the preferred land-use community vision to develop, three comprehensive plan map amendments are recommended. Please see Figure 2). The adoption of the *Three Mile Lane Area Plan* does not amend the Comprehensive Plan Map. Those amendments will be undertaken either by future city initiatives or private property owner initiatives.

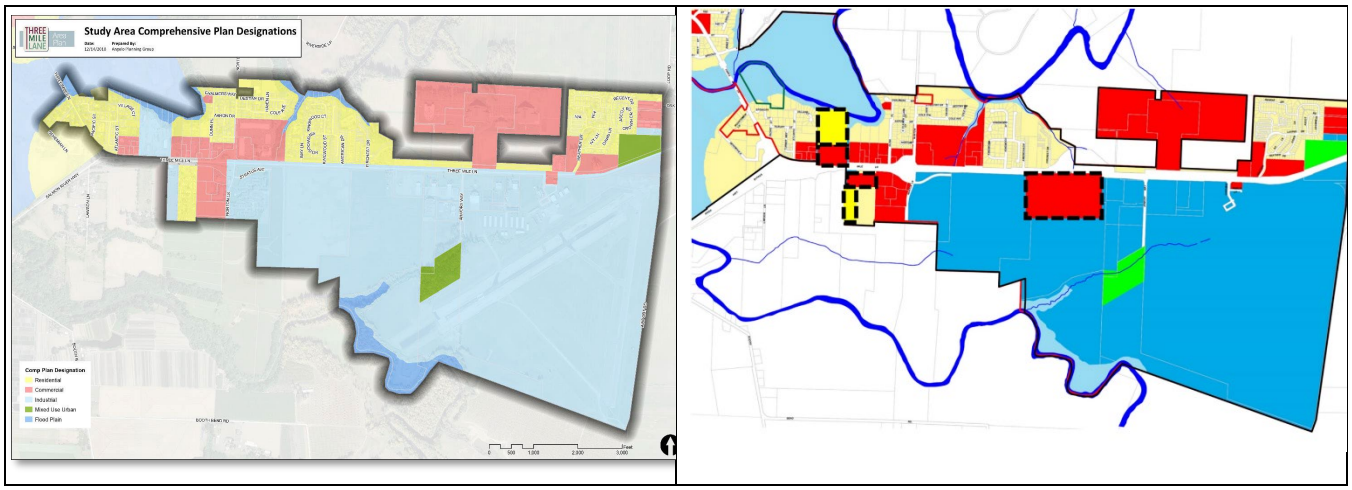

Figure 2: Three Proposed Comprehensive Plan Map Amendments

The preferred transportation facility plan relies on both local network and state network improvements including the development of local frontage roads on both the north and south sides of Highway 18, as well as optimization of the existing signalized intersections, a new traffic improvement at the intersection of Cirrus Avenue and Highway 18 and Three Mile Lane and Cumulus Avenue and the removal of accesses at Loop Road and Cruickshank Road, as well as several other access points between Cumulus Avenue and the eastern edge of the study area. (Please see Figure 3).

All of these transportation improvements are already contemplated in the *McMinnville Transportation System Plan* except for the intersection improvement at Cirrus Avenue and Highway 18, and the optimization of the existing signalized intersections. Those transportation projects will be added to the *McMinnville Transportation System Plan* when the plan is updated in 2022 and 2023. The current *McMinnville Transportation System Plan* contemplates the improvements needed for a planning horizon of 2003-2023, and the updated transportation system plan will contemplate the improvements needed for a planning horizon of 2021-2041. (Cruickshank Road is in the county and will not be part of the *McMinnville Transportation System Plan*.)

Since the *Oregon Highway 18 Corridor Refinement Plan* is a guidance plan with a phased methodology of improvements on Highway 18 dependent upon the *Oregon Highway Plan* and Division 51 standards, and the *Three Mile Lane Area Plan* complies with that phasing methodology, that will not be updated.

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The proposed Three Mile Lane Area Plan transportation improvements meet the *Oregon Highway Plan* standards so no amendments will need to be required to support the *Three Mile Lane Area Plan*. ODOT will adopt the *Three Mile Lane Area Plan* as a facility plan.

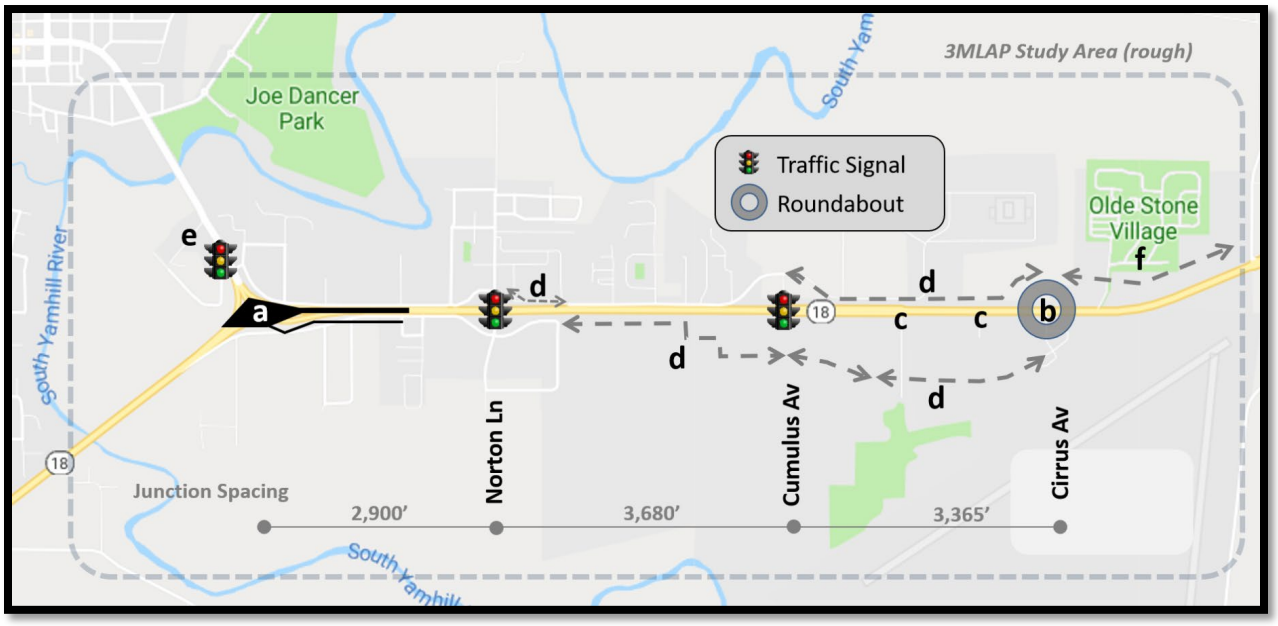

Figure 3: Preferred Transportation Plan for Three Mile Lane Area Plan

a) Three Mile Lane interchange - reconstructed for full directional access and crossing, with new connector to Stratus Avenue).

b) Cirrus Avenue – new intersection improvement on OR 18 (signal or roundabout), with McMinnville gateway features. *(Staff recommended amending this language to indicate that an intersection improvement was needed, but that it could be either a signal or a roundabout at the May 10 City Council public hearing. The figure will be adjusted to reflect that amendment).*

c) Removal of at-grade street and driveway accesses to OR 18 in the section between Cumulus Avenue and the eastern edge of the study area, including Loop Road and Cruickshank Road (Cruickshank Road is not shown, as Cruickshank Road is external to the Three Mile Lane Study area).

d) New east-west frontage streets north and south of OR 18, linking Cirrus Avenue, Cumulus Avenue and Norton Lane.

e) New traffic signal (or roundabout) at Three-Mile Lane and Cumulus Avenue.

f) Loop Road - disconnect from OR 18 and realign to new Cirrus Avenue connector and roundabout.

History of Planning Commission Public Hearing and Deliberation: The Planning Commission hosted four meetings to discuss the Three Mile Lane Area Plan (December 16, 2021, January 20, 2022,

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February 17, 2022, and March 17, 2022). At the first meeting on December 16, 2021, the public hearing was continued to January 20, 2022 without a staff report or public testimony. Then, the Planning Commission heard from a staff report and public testimony on January 20, 2022 and February 17, 2022.

Prior to the meeting on December 16, 2022, the City sent out a mailing to all property owners within the study area to apprise them of the upcoming public hearing. The City received three communications – one from Nolan Chard who was supportive of the proposed ***Plan*** and one from Rick Rozanski and Lisa Baker, who were both concerned about the feasibility of a trail system in the Central Neighborhood District near the Kingwood and Norton Crest subdivisions. With topography and soil challenges, they both recommended that an exact location for the trail needed to be further studied.

After the December 16, 2021 planning commission meeting, Friends of Yamhill County sent out an alert email to their membership and email distribution group. This alert generated a significant amount of testimony that was entered into the record for the January 20, 2022 planning commission public hearing.

After hearing testimony on January 20, 2022, the Planning Commission continued the public hearing to February 17, 2022, and asked staff to bring the transportation consultants and ODOT representatives to the February meeting to address some of the transportation issues that were raised during the January 20, 2022 public hearing testimony.

At the February 17, 2022 meeting, **Andrew Mortensen, Senior Transportation Planner with David Evans and Associates, Inc**., and lead Project Manager for the consultant team, and **Naomi Zwerdling, Planning and Development Review Manager, ODOT, Region 2**, and **Michael Duncan, Senior Region Planner, Transportation and Growth Management Project Manager for ODOT**, **Region 2**, provided testimony about the transportation evaluation and analysis of the planning effort, and answered in more detail questions that the Planning Commission and public testimony had about the particular design of the transportation elements identified in the Plan and the performance of the transportation system.

The Planning Commission then heard more public testimony on February 17, 2022, and elected to close the public hearing.

After closing the public hearing, the Planning Commission asked staff to amend the plan in two areas:

1) Add a provision for the future evaluation and consideration of a bicycle/pedestrian overpass on Highway 18 when the need and opportunity arose.

2) Strengthen the language about the City's desire to implement design and development standards in the area for the commercial site south of Highway 18, the Innovation Center site, and the mixed-use site on the north side of Highway 18, that will ensure that those developments are unique to McMinnville, reflecting McMinnville's community values.

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1) Add a provision for the future evaluation and consideration of a bicycle/pedestrian overpass on Highway 18 when the need and opportunity arose.

The City commissioned a memorandum from David Evans and Associates to examine the general implications of constructing a pedestrian bridge crossing of OR 18 near Norton Lane. (Please see attached memorandum).

A pedestrian overpass could potentially fit into the right-of-way (would need to be designed with frontage road construction), and would be approximately 125 feet long, costing approximately $3,500,000 - $5,000,000.

This would not be an ODOT funded project, and most likely, not an SDC (System Development Charge) eligible project as it has not been determined to be warranted (needed) per transportation scenarios. For context, traffic counts taken on OR 18 at Norton Lane in 2018, which served as the baseline analysis in the Three Mile Lane Area Plan, revealed that a total of 36 pedestrians cross OR 18 within the existing, at-grade, designated crosswalks at Norton Lane during a typical weekday, and a total of 5 pedestrians cross during the PM peak hour (4:40-5:30pm).

The following language was added to the Three Mile Lane Area Plan document, page 50.

Future Bicycle/Pedestrian Overpass Consideration

OR-18/Norton Avenue – Potential Bicycle / Pedestrian Overpass

In the adoption process of the 3MLAP, the City identified a future potential need for a bicycle/pedestrian overpass at OR 18/Norton Avenue to facilitate a separated bicycle and pedestrian crossing opportunity. This was not calculated as a need by the 3MLAP transportation analysis.

The City should continue to evaluate the bicycle and pedestrian movements from north to south at this intersection for mobility and safety, and explore opportunities to fund and implement this improvement proactively if determined to be warranted by the community.

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2) Strengthen the language about the City's desire to implement design and development standards in the area for the commercial site south of Highway 18, the Innovation Center site, and the mixed-use site on the north side of Highway 18, that will ensure that those developments are unique to McMinnville, reflecting McMinnville's community values.

Throughout the Three Mile Lane Area Plan document is language relative to the need that any new development in the Three Mile Lane Study Area should be subject to special design and development standards specific to that area, especially the new commercial site south of Highway 18, the Innovation Center and the mixed-use site north of Highway 18.

Currently, there is a Three Mile Lane Planned Development Overlay over the study area. This planned development overlay is intended to be amended and inserted into the McMinnville Municipal Code as a special overlay zone that has prescribed design and development standards for this area. The Three Mile Lane Area Plan has several sections with design and development policies in it that development will need to address. These policies have been assembled into a Recommended Design for Three Mile Lane Area information booklet. And are explained below.

One of the goals of the Three Mile Lane Area Plan is Goal #4, which addresses aesthetics and design.

GOAL 4: Create an aesthetically pleasing gateway to the City of McMinnville

> *The study area is a primary gateway to the City of McMinnville. Alternatives will be evaluated qualitatively for how well they provide an identity for the district, reflect McMinnville's intrinsic character and highlight the landscape features of the district.* *(Page 15 of the Plan document)*

Additionally, all development projects in the Three Mile Lane Area will need to comply with the City's adopted Great Neighborhood Principles. How they need to comply is identified in the Plan per the illustration below, found on pages 16 and 17 of the Plan.

1. *Natural Feature Preservation*
   - Strive to protect tree groves
   - Strive to protect individual trees
   - Protect riparian corridors and adjacent native landscape

2. *Scenic Views*
   - Provide and protect views to rolling hills and volcanoes
   - Provide visual and physical access to North Yamhill River
   - Orient streets and open spaces to views

3. *Parks and Open Spaces*
   - Connect to Galen McBee Airport Park
   - Connect to Joe Dancer Park
   - Create new gathering spaces that incorporate natural areas and views
   - Plant landscapes that incorporate natives and exhibit seasonal variation

4. *Pedestrian Friendly*
   - Provide a network of sidewalks and trails to connect people to key locations
   - Incorporate shade streets with mature tree canopy

5. *Bike Friendly*
   - Plan safe routes for residents and touring cyclists

6. *Connected Streets*
   - Connect to existing street grid in the Three Mile Lane area

7. *Accessibility*
   - Design new development for ease of use by all ages and abilities

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8. *Human Scale Design*

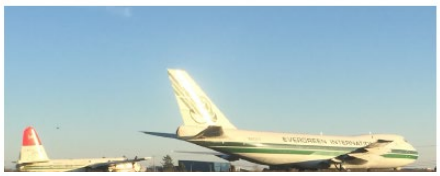
- Respect typical scale of commercial uses in McMinnville
- Design to reflect the micro-climate—outdoor life, porches, balconies
- Promote inclusion and interaction within the right-of-way

9. *Mix of Activities*

- Encourage mixed-use development where feasible

10. *Urban-Rural Interface*

- Reflect patterns of wine industry—eg, rows of vines, southern orientation, shelter belts of trees
- Consider adjacency to agricultural fields and respect this heritage through careful transitions
- Design simple roof forms (industrial and agricultural). Height and distinctive forms of silos can be inspiration
- Consider functional site planning of vineyard and farm complexes as conceptual model for new development



11. *Housing for Diverse Incomes and Generations*

- Allow for a mix of future housing forms and types, respecting the current character of Three Mile Lane

12. *Housing Variety*

- Respect existing variety of housing types in
- Three Mile Lane and ensure diversity of design for future housing

13. *Unique and Integrated Design Elements*

- Ensure visibility from highway; Welcome to McMinnville
- Make functions of sites visible (airplanes, wine-making); continue expression of industry/making where applicable
- Aviation legacy: display large planes; consider sensation of low-flying planes, potential visual impact of sites from the air
- Consider local and/or sustainable materials for cladding and building structure (timber, corrugated steel cladding, red brick)
- Use vibrant color

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These principles were then translated into Three Mile Lane Area Plan policies for new development as identified on pages 35 and 36 of the Plan.

Three Mile Lane Area Plan Policies

1. *Require future development to be consistent with the design elements of the Three Mile Lane Area Plan.*
2. *Public improvements and private development shall strive to protect tree groves and mature individual trees.*
3. *Riparian corridors and adjacent native landscape shall be protected.*
4. *The built environment will be designed to provide and protect views to rolling hills and volcanoes and to enhance visual and physical access to the North Yamhill River. New streets and open spaces will be oriented to capture views.*
5. *Enhancing connections to existing trails and open space, such as connections into Joe Dancer Park and McBee Park, and creating a public greenway along South Yamhill River with trails and connections to the Three Mile Lane Area is a priority.*
6. *New gathering spaces will be designed to incorporate natural areas and views.*
7. *Require native landscape plantings with seasonal variation and tree plantings that include shade streets with mature tree canopy.*
8. *A network of sidewalks and trails will connect people to key locations within the Three Mile Lane Area.*
9. *The Three Mile Lane Area will have safe bicycle routes for residents and touring cyclists.*
10. *Proposed new streets will connect to the existing local street grid, consistent with the conceptual designs in the Three Mile Lane Area Plan and in compliance with Transportation System Plan standards.*
11. *New commercial developments should be designed to be at a walkable, human scale and for ease of use by all ages and abilities.*
12. *New commercial, office, mixed-use, and multi-family developments should be designed to reflect the micro-climate and enhance outdoor life through the incorporation of features such as porches, balconies, courtyards, plazas, etc.*
13. *New commercial, office, mixed-use, and industrial campus developments should promote inclusion and interaction within the right-of-way.*
14. *Encourage mixed-use development where feasible.*
15. *Proposed site landscape for new development should strive to reflect patterns of wine industry—eg, rows of vines, southern orientation, shelter belts of trees – and consider functional site planning of vineyard and farm complexes as conceptual models.*
16. *New development should consider adjacency to agricultural fields and respect this heritage through careful transitions.*

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17. *Architectural building design that includes simple roof forms (industrial and agricultural) is encouraged in the Three Mile Lane Area.*

18. *Encourage a diversity of future housing forms, types, and design that respect the current character of the area.*

19. *Ensure that new commercial and industrial campus development creates a welcoming and visible interface with Three Mile Lane.*

20. *Encourage site design and architecture that visibly convey the historic or current industry on the site (e.g., aviation, wine-making).*

21. *New commercial, mixed-use, office, and industrial campus development should consider using local materials for cladding and building structure (timber, corrugated steel cladding, red brick), and incorporating vibrant color.*

The mixed-use development on the north side of Highway 18, the commercial site on the south side of Highway 18, and the Innovation Center are then discussed further in the plan document in terms of design intentions, indicating that they particularly should have the following features:.

- Human-scale development that is pedestrian friendly.
- Walkable, narrow main streets connecting through the center, with parallel or angled on-street parking in front of retail storefronts.
- Public gathering spaces, bordered by dining and entertainment attractions, featuring play areas and flexible space for programmed public events.
- Shared parking lots, generally located behind buildings, featuring wide pedestrian walkways, EV charging stations, bicycle parking, and transit stops. As well as integrated stormwater treatment and ample landscaping including shade trees.
- Sustainable high-quality architecture, themed in a regionally appropriate way, with buildings placed in prominent locations that contribute to the quality of the pedestrian experience, versus behind large surface parking lots.
- Building edges that create ‘frontage’ on walkable streets or pedestrian walks, with higher-quality materials, generous windows and pedestrian-scale signage in the first 20-30’ of elevation.
- Proximity and connection to a mix of other uses, to encourage walking from residential or office areas to the retail center.
- Generous landscape buffers between the retail center and roadways or parking lots while maintaining maximum visibility for retailers.
- A prominent entry to the site, with signage or a gateway feature.

(page 27 of the Plan document.)

And finally, on pages 44, 45 and 46 is a detailed description of how these policies need to be integrated into McMinnville’s zoning ordinance and the Three Mile Lane Overlay.

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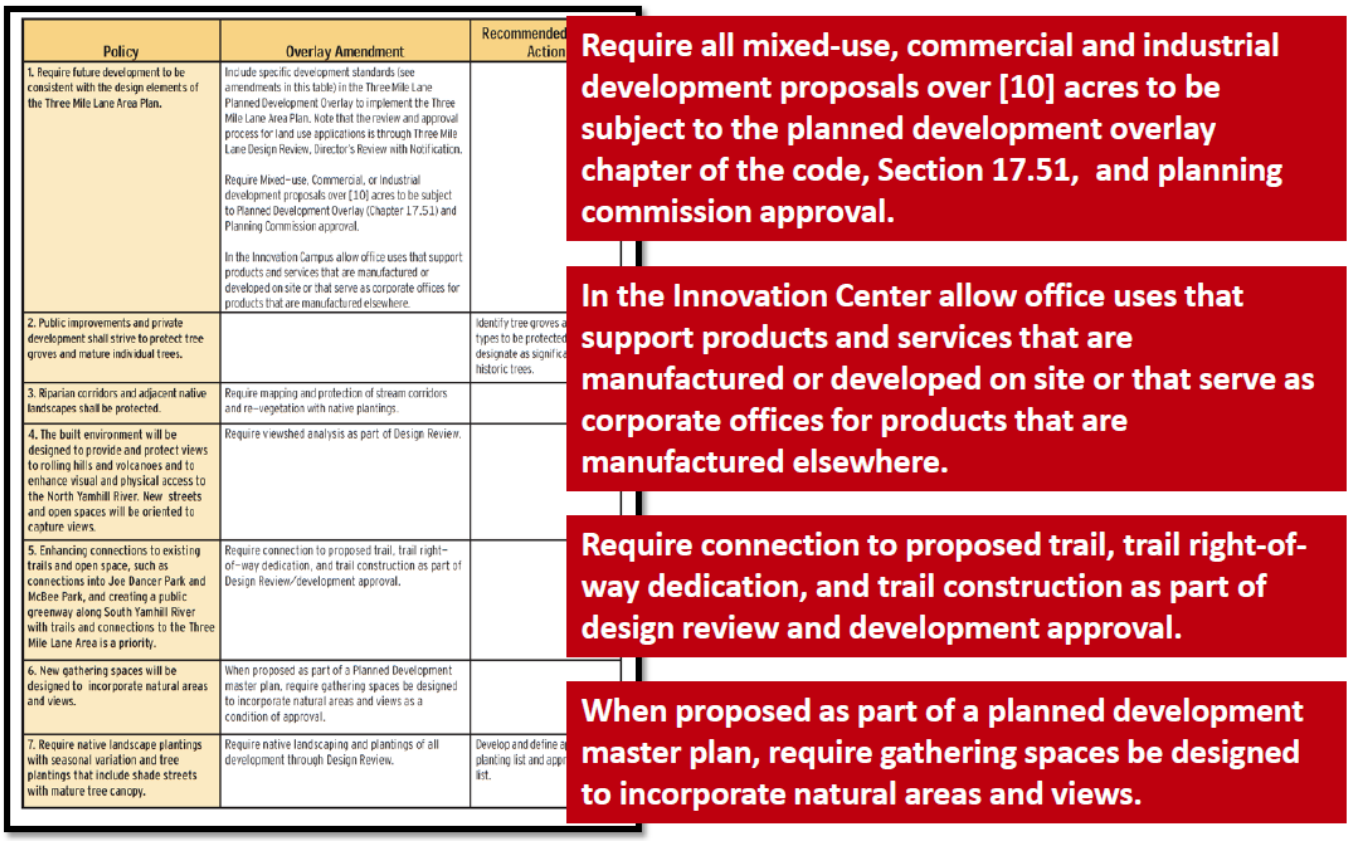
These include but are not limited to:



Policy	Overlay Amendment	Recommended Action
1. Require future development to be consistent with the design elements of the Three Mile Lane Area Plan.	Include specific development standards (see amendments in this table) in the Three Mile Lane Planned Development Overlay to implement the Three Mile Lane Area Plan. Note that the review and approval process for land use applications is through Three Mile Lane Design Review, Director's Review with Notification. Require Mixed-use, Commercial, or Industrial development proposals over [10] acres to be subject to Planned Development Overlay (Chapter 17.51) and Planning Commission approval. In the Innovation Campus allow office uses that support products and services that are manufactured or developed on site or that serve as corporate offices for products that are manufactured elsewhere.	
2. Public improvements and private development shall strive to protect tree groves and mature individual trees.		Identify tree groves a types to be protected designate as significa historic trees.
3. Riparian corridors and adjacent native landscapes shall be protected.	Require mapping and protection of stream corridors and re-vegetation with native plantings.	
4. The built environment will be designed to provide and protect views to rolling hills and volcanoes and to enhance visual and physical access to the North Yamhill River. New streets and open spaces will be oriented to capture views.	Require viewshed analysis as part of Design Review.	
5. Enhancing connections to existing trails and open space, such as connections into Joe Dancer Park and McBee Park, and creating a public greenway along South Yamhill River with trails and connections to the Three Mile Lane Area is a priority.	Require connection to proposed trail, trail right-of-way dedication, and trail construction as part of Design Review/development approval.	
6. New gathering spaces will be designed to incorporate natural areas and views.	When proposed as part of a Planned Development master plan, require gathering spaces be designed to incorporate natural areas and views as a condition of approval.	
7. Require native landscape plantings with seasonal variation and tree plantings that include shade streets with mature tree canopy.	Require native landscaping and plantings of all development through Design Review.	Develop and define a planting list and appr list.

Require all mixed-use, commercial and industrial development proposals over [10] acres to be subject to the planned development overlay chapter of the code, Section 17.51, and planning commission approval.

In the Innovation Center allow office uses that support products and services that are manufactured or developed on site or that serve as corporate offices for products that are manufactured elsewhere.

Require connection to proposed trail, trail right-of-way dedication, and trail construction as part of design review and development approval.

When proposed as part of a planned development master plan, require gathering spaces be designed to incorporate natural areas and views.

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Policy	Overlay Amendment	Recommended Future Action
8. A network of sidewalks and trails will connect people to key locations within the Three Mile Lane Area.	Apply pedestrian walkway and connectivity standards to all non-residential development. Note: Pedestrian walkway standards, currently are applied to Large Format Retail; site design requires connections between buildings and from building entrances to streets (§17.56.050.C.2).	
9. The Three Mile Lane Area will have safe bicycle routes for residents and touring cyclists.	Require transportation improvements consistent with the Area Plan through Design Review.	
10. Proposed new streets will connect to the existing local street grid, consistent with the conceptual designs in the Three Mile Lane Area Plan and in compliance with Transportation System Plan standards.	Require transportation improvements consistent with the Area Plan through Design Review.	
11. New commercial developments should be designed to be at a walkable, human scale and for ease of use by all ages and abilities.	Requirements for commercial building size and massing. Standards for parking maximums for all uses. Parking lot location requirements for commercial uses.	Additional guidelines standards related to t treatments. 17.56.050 Development Standards
12. New commercial, office, mixed-use, and multi-family developments should be designed to reflect the micro-climate and enhance outdoor life through the incorporation of features such as porches, balconies, courtyards, plazas, etc.	Require as part of Design Review: • Standards for non-residential buildings to include minimum pedestrian shelter coverages along ground floor elevations/street frontages and main entrances. • Residential design features to include clear and objective building design standards/ architectural elements.	Additional guidelines standards related to t treatments.
13. New commercial, office, mixed-use, and industrial campus developments should promote inclusion and interaction within the right-of-way.	Require as part of Design Review: • New requirements for building orientation (set-to, building orientation); • Additional guidelines or standards related to façade treatments, including transparency. • Provision of on-street parking for ground-floor commercial uses (new requirements allowing on-street spaces to be counted toward parking minimums, new cross-section standards for streets with ground-floor retail).	
14. Encourage mixed-use development where feasible.		Consider additional guidelines or requirements for the Mixed Use area.

Apply pedestrian walkway and connectivity standards to all non-residential development per Section 17.56 of the MMC.

Requirements for maximum parking standards and not minimum parking standards.

Requirements for commercial building size and massing.

Requirements for building orientation, façade treatments, provision of on-street parking, grid streets, etc.

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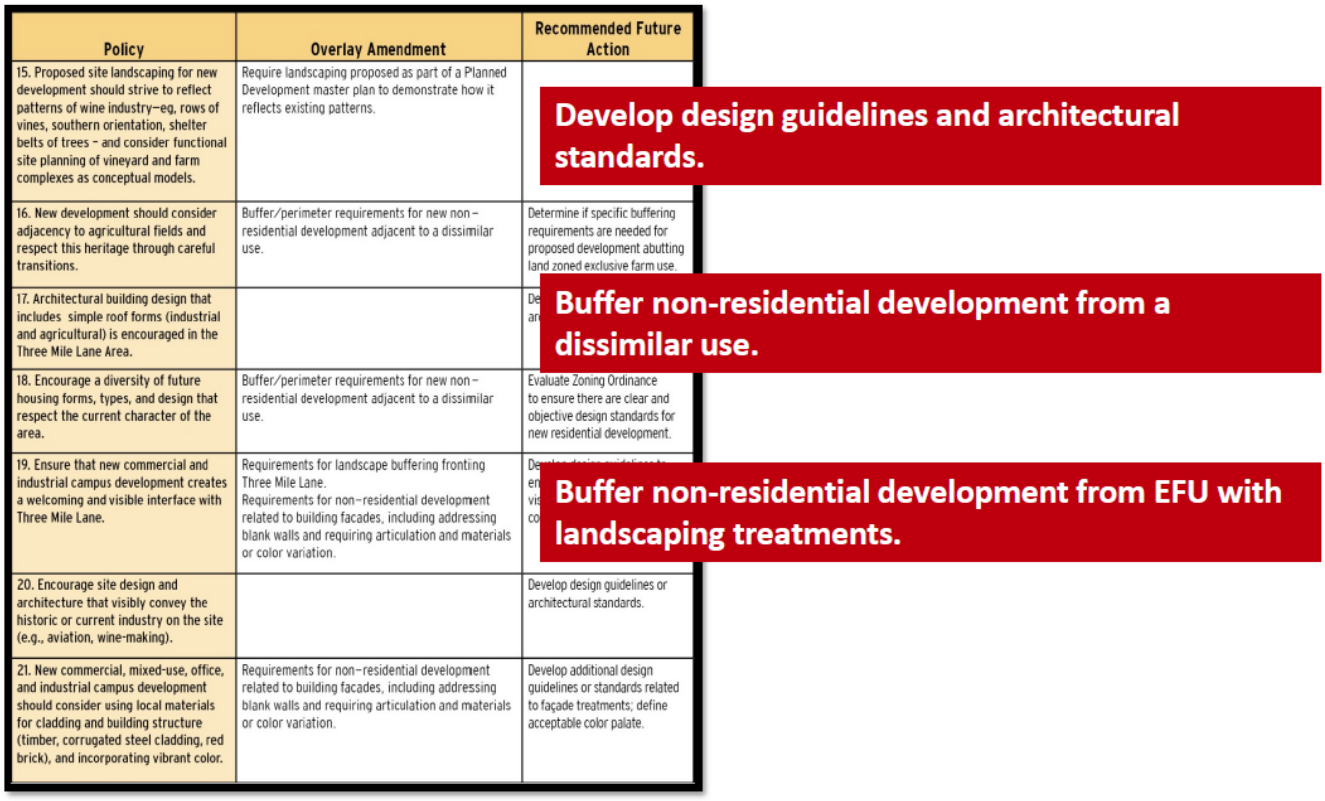

Policy	Overlay Amendment	Recommended Future Action
15. Proposed site landscaping for new development should strive to reflect patterns of wine industry–eg, rows of vines, southern orientation, shelter belts of trees – and consider functional site planning of vineyard and farm complexes as conceptual models.	Require landscaping proposed as part of a Planned Development master plan to demonstrate how it reflects existing patterns.	
16. New development should consider adjacency to agricultural fields and respect this heritage through careful transitions.	Buffer/perimeter requirements for new non–residential development adjacent to a dissimilar use.	Determine if specific buffering requirements are needed for proposed development abutting land zoned exclusive farm use.
17. Architectural building design that includes simple roof forms (industrial and agricultural) is encouraged in the Three Mile Lane Area.		
18. Encourage a diversity of future housing forms, types, and design that respect the current character of the area.	Buffer/perimeter requirements for new non–residential development adjacent to a dissimilar use.	Evaluate Zoning Ordinance to ensure there are clear and objective design standards for new residential development.
19. Ensure that new commercial and industrial campus development creates a welcoming and visible interface with Three Mile Lane.	Requirements for landscape buffering fronting Three Mile Lane. Requirements for non–residential development related to building facades, including addressing blank walls and requiring articulation and materials or color variation.	
20. Encourage site design and architecture that visibly convey the historic or current industry on the site (e.g., aviation, wine-making).		Develop design guidelines or architectural standards.
21. New commercial, mixed-use, office, and industrial campus development should consider using local materials for cladding and building structure (timber, corrugated steel cladding, red brick), and incorporating vibrant color.	Requirements for non–residential development related to building facades, including addressing blank walls and requiring articulation and materials or color variation.	Develop additional design guidelines or standards related to façade treatments; define acceptable color palate.

After reviewing the depth of details that currently exist in the Three Mile Lane Area Plan for design and development standards to be implemented with future development, the Planning Commission elected not to make any additional amendments to these principles and implementation guidelines, except for the language associated with Great Neighborhood Principle #11, which was amended to read, “Allow for a mix of housing forms and types that serve a variety of household incomes and respect the current character of Three Mile Lane,” (page 17 of the ***Plan***)

During the Planning Commission public hearing process, much of the testimony focused on opposition to the proposed comprehensive plan map amendment for additional commercial land on the south side of Highway 18, and the impact of that amendment to the functionality of Highway 18. After hearing from the transportation consultant and ODOT representatives, the Planning Commission that the ***Plan*** as proposed met all of the state standards for mobility and functionality of an expressway.

Friends of Yamhill County and 1000 Friends also proposed five amendments to the ***Plan***, per the following:

- Reject the redesignation of industrial land to accommodate a new “Town Center/Large Format Retail Shopping Center”.

- Prioritize the neighborhood serving commercial uses, a pedestrian overpass, and the park near the recently approved apartments, using the Neighborhood Activity Overlay provisions that are already in the code.

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- Include the commercially-designated island of land recently added to the UGB, north of the expressway. This land is surrounded by, and is functionally an integral part of, the Three Mile Lane Area.

- Encourage geographically and/or vertically mixed use on the Baker Rock/Cal Portland site.

- Reconsider appropriate commercial uses near the Loop Rd. gateway to the City.

The Planning Commission elected not to move forward with these recommendations except for the inclusion of the consideration of a pedestrian overpass.

There is nowhere in the ***Plan*** where a "Large Format Retail Shopping Center" is recommended as a preferred land-use alternative. Pages 24 – 28 of the ***Plan*** describe a Retail Center and Innovation Center where the retail center is further described as a mixed-use "town center" *that offers gathering spaces, walkable streets, and more dining options than typical strip suburban developments or enclosed shopping centers.* The only place where "large format" is discussed is page 13 of the ***Plan*** when describing the results of the market analysis in Appendix B. The project advisory committee was very intentional in describing a mixed-use town center and not a large format retail shopping center in their description of preferred land uses in the ***Plan*** with examples of other mixed-use town centers to emulate in terms of design and development standards (ie Orenco Station and the Old Mill District). The map is labeled as a "Retail Center" and a recommendation could be to change the map label to "Mixed-Use Town Center" to more accurately reflect the ***Plan*** document.

The Three Mile Lane Area Plan scope of work was developed and negotiated in early 2018. ODOT then updated its transportation model in 2019, and the transportation scenarios were developed in 2020, with a final draft of the Plan in April 2021. The McMinnville City Council did not provide direction to work on an urban growth boundary amendment until March 2020. The draft map for the urban growth boundary amendment was not final until November 2020. The City adopted the urban growth boundary amendment in December 2020, and it was not acknowledged by the state until April 2021. Throughout the process, city staff met with ODOT and DLCD representatives to confirm decision-making milestones and assumptions relative to the traffic modeling and transportation scenarios based on the state regulations. When Friends of Yamhill County and 1000 Friends of Oregon suggested that the traffic modeling needed to be redone to include the recently amended urban growth boundary amendment in April 2021, city staff consulted with legal counsel and DLCD representatives. Both indicated that the Three Mile Lane Area Plan transportation modeling did not need to be amended. If the City wants to amend the transportation modeling in the Three Mile Lane Area Plan it would be responsible for the associated costs. In order to incorporate the recent urban growth boundary amendment, ODOT will need to update its transportation model (approximately 6 – 9 months) and new transportation scenarios would need to be analyzed. The City is working with ODOT to update the transportation model for its Transportation System Plan update planned in 2022-2024. Part of the proposed recommendation for G 7-21 is to amend the McMinnville Transportation System Plan to be consistent with the Three Mile Lane Area Plan.

The Baker Rock/Cal Portland site is recommended to be a mixed-use development (page 21 and 22 of the Plan),

The uses near the Loop Road gateway are currently identified as tourist commercial, and the project advisory committee did not recommend changing the underlying comprehensive plan map designation or the zoning for this area.

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Margaret Cross provided public testimony at the Planning Commission recommending that the City engage in a new public process for the Three Mile Lane Area Plan to encourage more participation in the dialogue and to overcome the potential impacts of COVID on the process. The Planning Commission considered her recommendation and concluded that the public process utilized was comprehensive and that the City did not have the resources to continue with a new public process.

On March 17, 2022, the Planning Commission voted unanimously to recommend approval of the ***Plan*** to the McMinnville City Council with the two amendments discussed in this staff report.

On March 25, 2022, Mark Davis published a "Viewpoint" in the *News-Register*, entitled "Don't Turn Bypass into a Bottleneck" encouraging people to send in testimony to the McMinnville City Council in anticipation of a future City Council decision on the Plan. This generated several emails to the City Recorder's office.

On April 20, 2022, Friend of Yamhill County emailed a "Call to Action" to their membership and email distribution group encouraging people to submit Letters to the Editor of the *News-Register* and testimony to the City Council in anticipation of a future City Council decision on the Plan. This generated several emails to the City as well.

May 10, 2022 City Council Public Hearing: The City Council heard a staff report and public testimony on May 10, 2022. Staff recommended two amendments as part of the staff report relative to two different figures in the Three Mile Lane Area Plan:

1) a revised Community Land-Use Vision Preferred Alternative Map to better reflect the proposed underlying comprehensive plan designations needed to facilitate the community vision per below; and

2) proposed language and figure indicating that the proposed traffic improvement at Cirrus Avenue and Highway 18 has not yet been decided and could be a signal or a roundabout.

Proposed community land-use vision map amended to more clearly reflect the narrative in the plan document, with descriptions per the following: Mixed-Use Area, Tourist Commercial, Health Care Area, Retail Center (Mixed-Use Town Center) / Innovation Campus, and underlying colors that more clearly illustrate the comprehensive plan designation needed to achieve that vision. Note that Hospital, Medical and Hospital Ancillary Uses, Medical Professional Uses, Research and Development Offices, Business School or Trade College, and other similar uses are all allowed in McMinnville's industrial zones.

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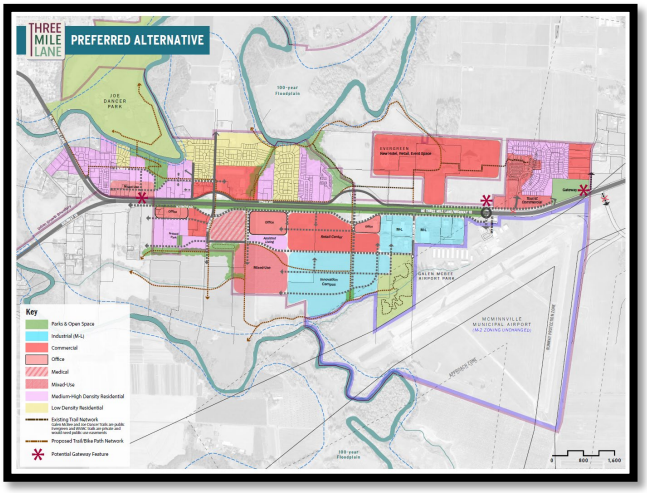
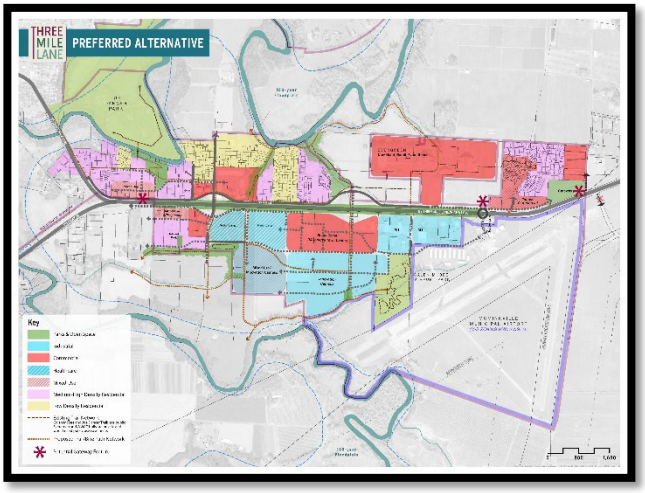
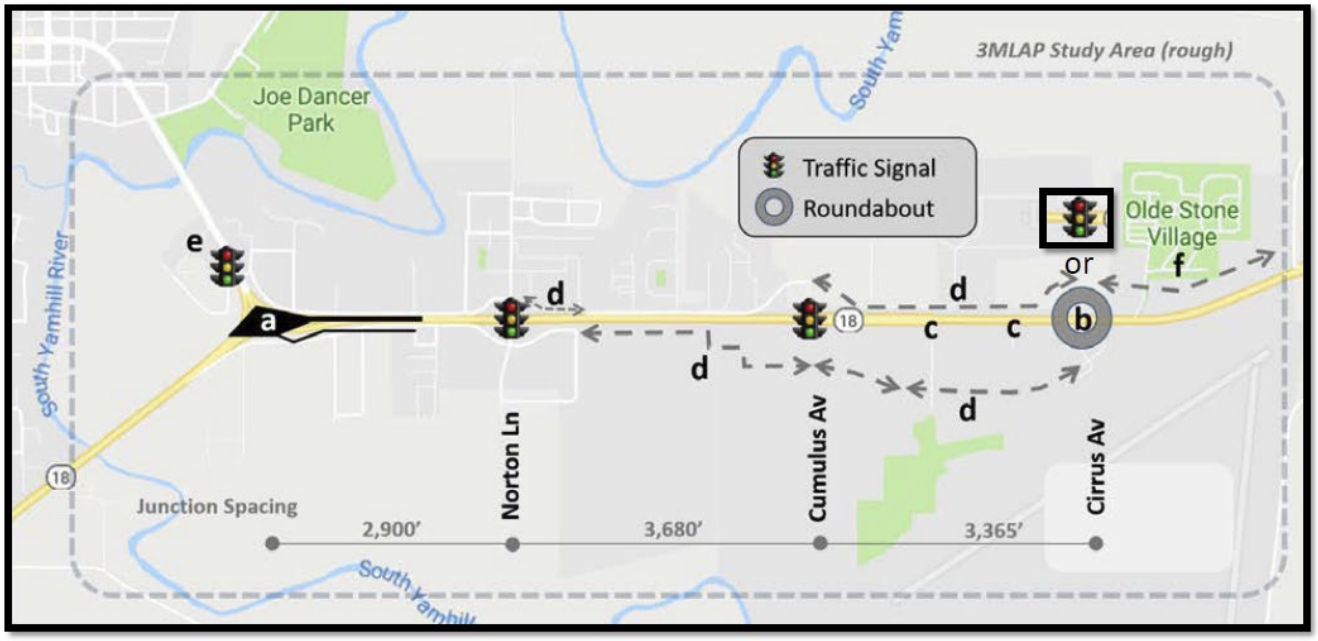


Original Preferred Alternative Land-Use Vision Map



Amended Preferred Alternative Land-Use Vision Map

Amended Preferred Transportation Facility Figure showing both a signal and roundabout at Cirrus Ave.



Managing the Highway System: There was some dialogue at the May 10, City Council public hearing about the impact of the proposed Three Mile Lane Area Plan on Highway 18, especially relative to its functionality as an expressway and freight route.

The adopted Oregon Highway Plan (OHP) classifies Highway 18 as state expressway and freight route. To protect the functionality of its highway system, ODOT's Oregon Highway Plan has standards that manage the functionality of the highway as congestion grows on the system. The standard for a state expressway and freight route is to not allow intersections to exceed 80% of its vehicular capacity at peak travel times. (v/c ratio = 0.80).

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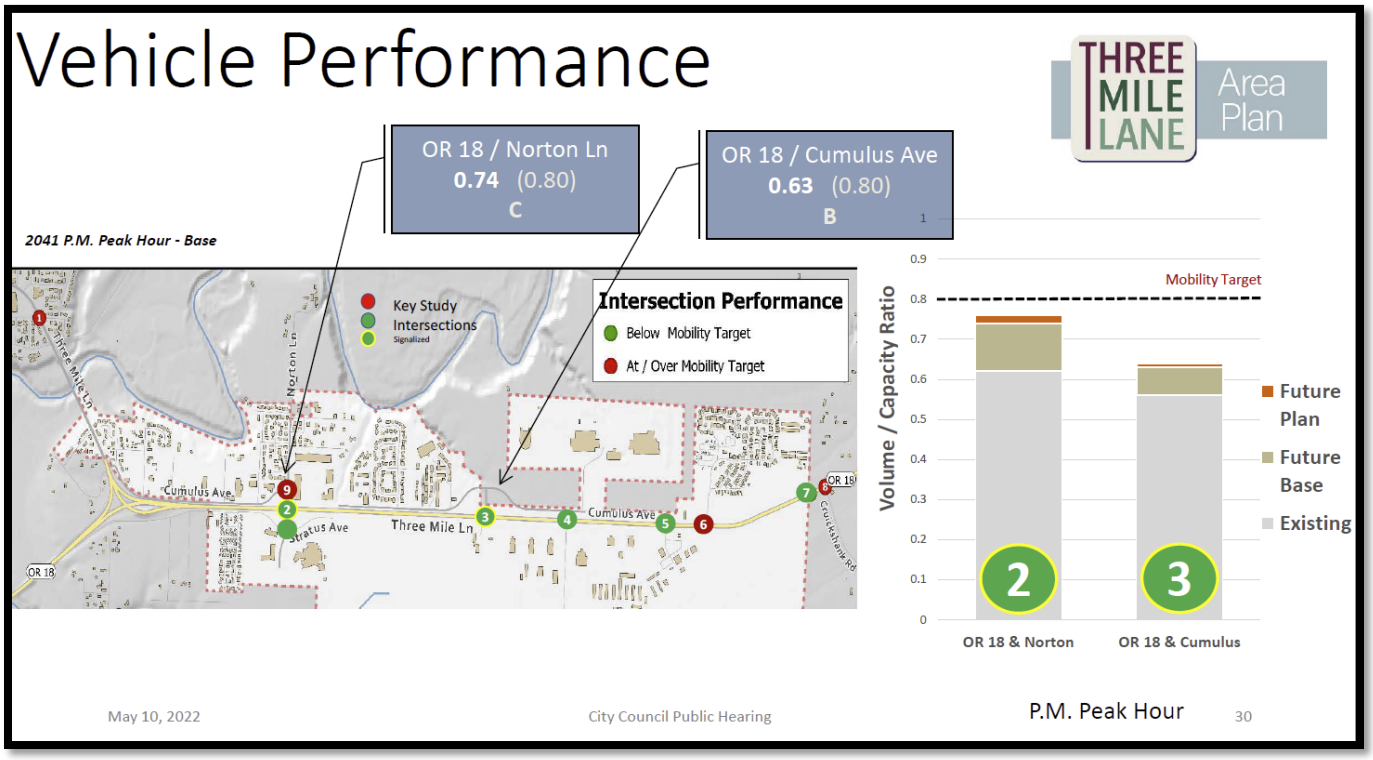
To study the impact of the preferred community land-use vision on the highway facility, the consultant team and ODOT modeled the transportation performance of the highway at 2041 with the full build-out of the existing land within the city limits developed per the existing comprehensive plan map designations. This is the measurement of what is forecasted to happen without adopting the proposed comprehensive plan map amendments in the Three Mile Lane Area Plan. That analysis showed that, at the peak hour of the day, the two highway intersections performed at 74% and 63% of capacity (or 0.76 and 0.64) respectively per the illustration below. This means that with full build-out of the current land within the city limits at the current comprehensive plan map designations, the highway operates within the state adopted standards for state expressways and freight routes.



Then the consultant team and ODOT modelers analyzed what would happen to the two Highway 18 intersections if the land in the study area developed per the comprehensive plan map amendments needed to support the community vision for the Three Mile Lane Study Area at full build-out in 2041. With those amendments, the performance of the two intersections went from 74% and 63% of capacity to 76% and 64% of capacity at the transportation peak hour. A difference of 2% and 1% increase in capacity respectively. And the system still operates within the adopted state standards for state expressways and freight routes. See figure below.

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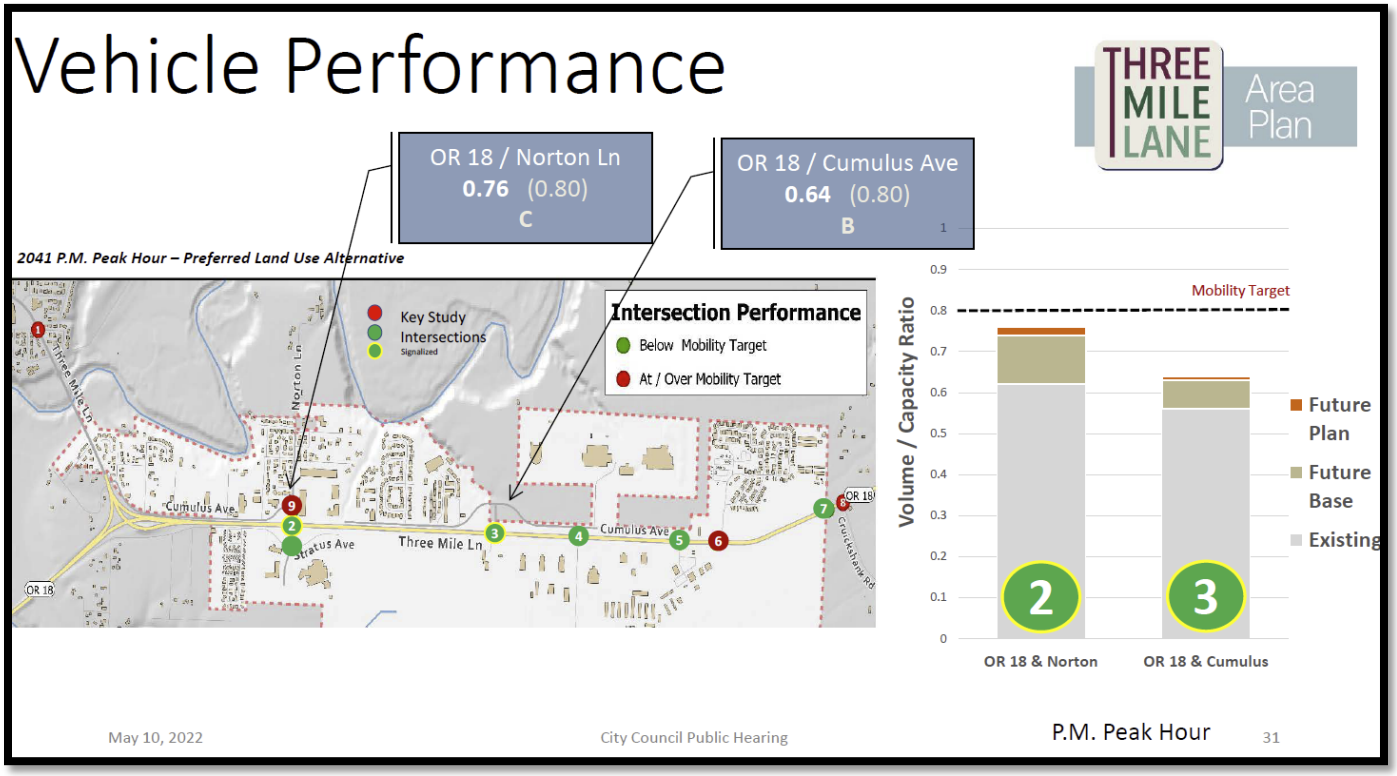

This is a high-level analysis based on comprehensive plan amendments. As the amendments become more refined, then the analysis will become more refined since there is more detailed knowledge about what will occur in terms of development. For instance, with a rezone, the applicant will need to provide a traffic impact analysis of the worst-case traffic scenario that could occur within that particular zone. And when a development plan is presented the applicant will need to provide another traffic impact analysis specific to that development plan. And if the land-use application impacts state facilities both ODOT and the city have jurisdictional review of impact and conditions of approval for the development.

City Council asked for the process for ODOT review of land-use applications at the May 10, 2022 public hearing. Below is their response.

For comp plan amendments and zone changes ODOT reviews according to the requirements of the TPR – OAR 660-012-0060 – and the OHP Mobility Policy (1F.) Note that action 1F.2 states, in the case of plan amendments and zone changes, the analysis year is 15 years or the horizon year of the local TSP, whichever is greater. The policy also establishes standards for mitigation where the mobility target is met and where it is exceeded prior to development. The policy also establishes a threshold for where an increase in traffic is not considered significant (small increase in traffic) where the target has already been exceeded.

For development review (site plans, conditional use permit, etc.) ODOT's review is limited to the Agency's statutory authority to regulate access to state highways and to require mitigation for project-related impacts. ODOT has limited ability to require off-site mitigation and it must be directly related to the impacts of the project.

The Development Review Guidelines take a deep dive into this, but unfortunately contain no easy to read one-pagers. https://www.oregon.gov/odot/Planning/Documents/Development-Review-Guidelines.pdf

Flow Chart from the ODOT Design Review Guidelines , page 58.

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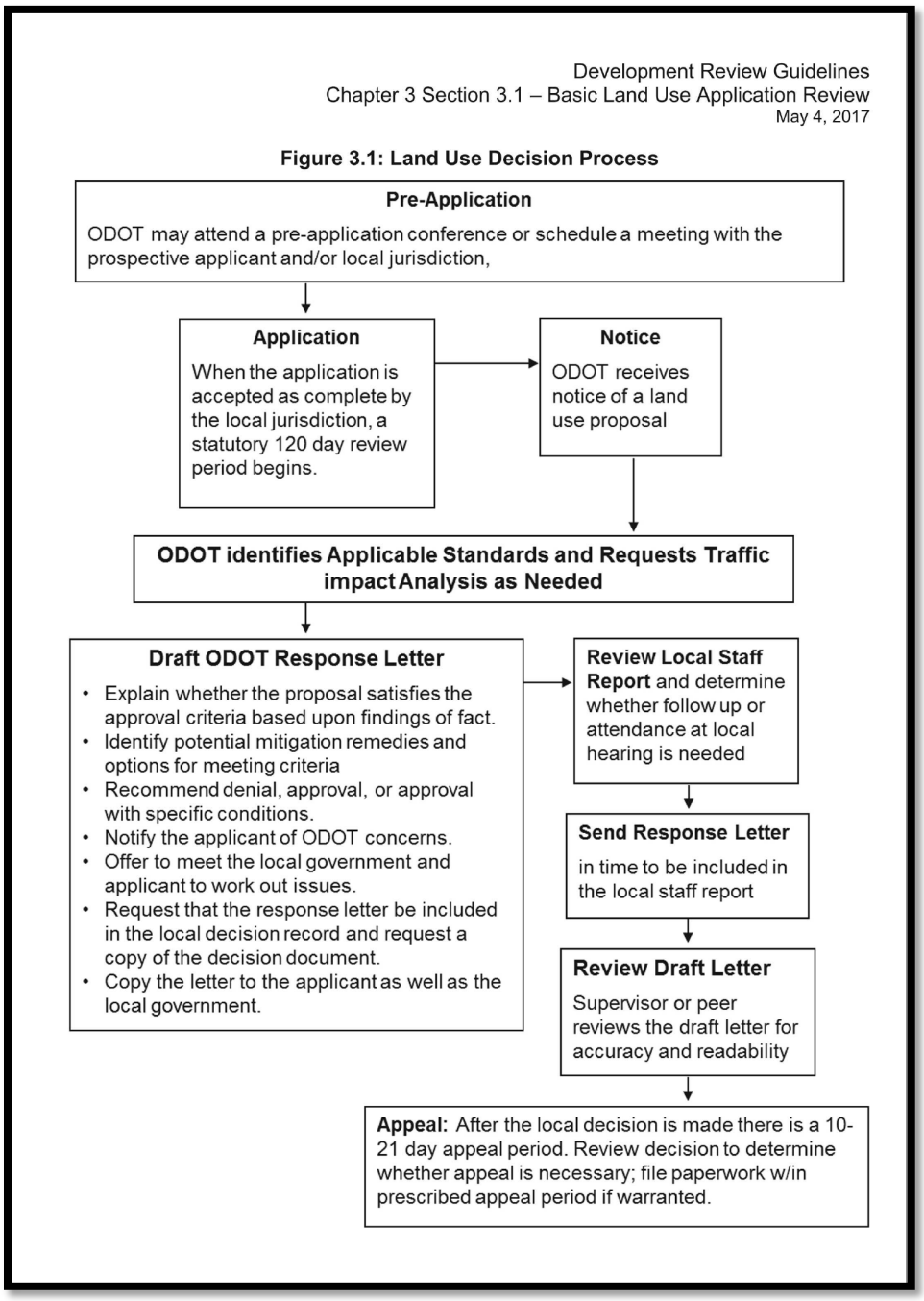

After hearing testimony on May 10, 2022, the City Council elected to continue the public hearing to June 14, 2022, asking staff to bring back some information on the process for reviewing land-use developments and their relative impact to both state and local transportation facilities.

City Council Requests for More Information from June 14, 2022 Public Hearing: City Council asked staff to research several different items after listening to public testimony at the June 14, 2022 public hearing. The results of that research is encapsulated below:

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1) *How much of the Retail Leakage in the Three Mile Lane Area Plan Market Analysis can be attributed to e-commerce (online shopping)?*

   The same question was posed in July, 2021. Staff has reached out to Chris Zahas, Managing Principal of Leland Consulting Group that worked on the Three Mile Lane Area Plan Market Analysis with the question at that time.

   His response was that although the data is not provided with online leakage versus bricks and mortar leakage, the industry standard and assumption for this analysis in 2019 was 11% of retail leakage could be attributable to online shopping. In his discussion with staff in July, 2021, he stated that due to COVID the industry standard had increased to 15%.

   Staff conducted some additional research and found several articles written in 2021 that reaffirmed Chris Zahas' assumption that online shopping had increased to 15% by 2021 due to COVID. However, interestingly, new data in 2022 is showing that consumers are returning to bricks and mortar in most industries and the online share of spending is trending down from 15% in 2022.

   An article from World Economic Forum, March 21, 2022, "Is the E Commerce Trend Coming to An End?" states that, "On average, the online share of total spending rose sharply from 10.3 percent in 2019 to 14.9 percent at the peak of the pandemic, but then fell to 12.2 percent in 2021."

   These are industry standards and should be used as a perspective of relativity.

2) *For perspective on the discussion relative to retail sizes, what are the sizes of the larger retailers in McMinnville, Newberg and Sherwood, and what are the standard industry size ranges of different retailers?*

   Attachment A provides the size ranges of different retailers in McMinnville, Newberg and Sherwood, and the standard industry range of store sizes for some brand name retailers. In McMinnville, Lowe's is the largest retailer, with a building footprint of approximately 170,000 square feet. Walmart's building footprint is approximately 118,000 square feet. In Newberg, the building footprint of Fred Meyer's is 180,000.

3) *Councilor Geary's Questions about V/C ratios. Councilor Geary provided several detailed questions about v/c rations – how they are calculated and applied in transportation analysis. Staff reached out to the Transportation Engineers and Planners at David Evans and Associates (consultant on the Three Mile Lane Area Plan) and Oregon Department of Transportation – Region 2 (Project Manager of the Three Mile Lane Area Plan). Attachment B to this staff report provides their answers. They will also provide a staff report at the July 26 public hearing.*

Discussion of Draft Design and Development Standards for Quasi-Judicial Land-Use Applications: At the public hearing, as part of his testimony and follow-up answers to City Council questions, Sid Friedman, representing Friends of Yamhill County, discussed the draft design and development standards that were drafted by staff as a condition of approval for the quasi-judicial land-use applications that were submitted by the property owners of the property identified for the Retail Center in the Three Mile Lane Area Plan. He wanted City Council to know that the draft design and development standards referenced 2 – 3 anchor retailers of 135,000 square feet. Staff replied that it was a

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recommendation that 1 – 2 anchor retailers of 135,000 square feet. The actual draft recommendation is below and is part of a comprehensive design and development standards package that will also help to determine form and massing on the site. Sid Friedman asked that the record be corrected in an email to City Council on June 16, 2022. Attachment C provides that correction to record.

V.2. Uses

1. **Number of stores larger than 135,000 square feet.** There shall be a limit of two anchor stores which have gross square footage exceeding 135,000 square feet, except that one additional anchor store exceeding 135,000 square feet may be permitted if the majority of the façade includes separate liner shops with individual exterior entrances.

Attachment E provides the entire staff report, draft decision document and attached draft design and development standards to the record as well to provide context for the recommendation, including why it exists and the rest of the regulatory framework in which it resides. As stated in the staff report on multiple occasions staff was concerned that the property owners had applied for a comprehensive plan map amendment and zone map amendment prior to the public hearing process for the Three Mile Lane Area Plan. It put the City in an awkward position on how to move forward with the request. Clearly the process that developed the Three Mile Lane Area Plan recommended a commercial comprehensive plan map amendment and rezone to commercial for the property adjacent to the Cumulus and Highway 18 intersection south of the highway, but the Plan is also very clear that the community wants to ensure that any development on that site would be held to specific design and development standards for the Three Mile Lane Area that would be developed after the Plan was approved. Since the Plan had not yet been approved and the work for the design and development standards had not yet commenced, staff felt the need to draft design and development standards for the quasi-judicial applications as a placeholder for the project with language in the findings document and this specific condition of approval that any development on the site impacted by the comprehensive plan map amendment and zone map amendment would need to comply with the principles of the Three Mile Lane Area Plan, the Three Mile Lane Overlay District or the condition of approval in the decision document for the design and development standards, whichever is most restrictive.

Public Engagement after June 14, 2022, Public Hearing. Staff recommended that the City Council continue the June 14, 2022, public hearing to July 26, 2022, in order to engage more people in the discussion and to allow people the time necessary to obtain the information they needed so that they could be part of the discussion. A large portion of the public testimony during the Planning Commission public hearings and the City Council public hearings has been from representatives, board members, and members of Friends of Yamhill County. As an article in the Friends of Yamhill County Summer 2022 newsletter states, “Public comments have had an impact. There is now talk at City Council of limiting store sizes and total amount of retail in the area. Please watch for email updates explaining how you can help improve the TMLAP,” *McMinnville Threatened by TMLAP*. (Newsletter article can be found in its entirety in Attachment E to this staff report).

Staff sent out a mailing to every address in McMinnville that was delivered on July 14 with the intent of letting all McMinnville residents and businesses know about the planning discussion underway and encouraging them to participate in the dialogue if they wanted to do so. Public Information Sessions were offered on July 14, July 18 and July 20, to share information about the plan, outline the dialogue that has been occurring at the City Council level and provide information to people on how they can communicate with City Council either informally by contacting them or formally by providing testimony.

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Discussion of Retail Center, Mixed-Use Town Center: Clearly, the recommendation to redesignate 40 – 60 acres of industrial land on the south side of the intersection of Cumulus and Highway 18 to proposal to a commercial comprehensive plan designation to support a future Retail Center, *"Mixed-Use Town Center"* has become the most controversial aspect of the Three Mile Lane Area Plan.

Public testimony has shown that the community (testimony has been provided by both City of McMinnville residents and residents of Yamhill County) does not have consensus on whether or not this aspect of the Plan should be adopted as recommended.

The City Council and Planning Commission heard testimony from people who:

1) Support the Mixed-Use Town Center proposal as they feel that McMinnville needs more commercial options for its residents, and for the industrial land to be successfully developed it will need the commercial development to help offset the public transportation improvements needed to develop the site – ie keep the recommendation as is with a commercial comprehensive plan map designation and recommended principles for future design and development standards to be added to the Three Mile Lane Overlay District.

2) Would prefer that the retail opportunities be limited to neighborhood-serving commercial – ie reduce the size and limit the zoning options to something akin to the C1 (Neighborhood Commercial) zone.

3) Would prefer that the retail opportunities be limited to just those commercial needs associated with the Industrial development – ie keep the industrial commercial plan map designation for the entire site with an allowance in a planned development for supportive industrial campus serving commercial .

4) Would prefer that no retail be allowed on this site at all - – ie keep the industrial commercial plan map designation for the entire site and limit options for retail.

Within the course of this dialogue, it seems that the discussion becomes very narrowly focused on the size of the retail allowed and the size of the site contemplated for that retail. However, the recommendation from the Project Advisory Committee and reaffirmed by the Planning Commission was based on several objectives as outlined below. Each of the different pathways outlined above will impact each of these objectives in a different way, by either addressing them or dismissing them.

Why was the Retail Center, "Mixed-Use Town Center" site proposed? The recommendation for the Retail Center, "Mixed-Use Town Center" evolved after a year of analysis and dialogue about what the community's future needs were and how to address them. The final recommendation was seen as the best methodology to achieve all of those respective needs.

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Issue Identified	How this Recommendation Addresses the Issue
Retail Leakage	Provides opportunities for additional commercial development to try and stem the leakage. Residents should presumably have commercial choices in their own community and not need to drive to other communities regularly to access them, especially in a town of 35,000 people that is growing to 45,000 people. To argue that a store in town provides clothing so that need is met, eliminates the value of choice for consumers. Retain leakage dollars in McMinnville.
Lack of Industrial Development on Industrial Land that has been zoned and in the City for 40 years.	The infrastructure costs associated with adjacency to a highway system are much higher than the infrastructure costs associated with adjacency to a local collector or connector street. To preserve the mobility of Highway 18, extensive local improvements need to be built to create a local transportation system that does not currently exist to keep local trips off of the highway. (Think about Riverside Drive, versus Highway 18 and the frontage roads needed.) Commercial development has the ability to absorb those costs into their proformas. Typically commercial lease rates are 3 – 4 times higher than industrial lease rates. Location and visibility is critical for commercial endeavors but not critical for industrial development. It is feared that without the commercial development to offset the infrastructure costs associated with this site, the industrial land will not be developed unless the public subsidizes the infrastructure. And it will remain on the city's buildable lands inventory as job-producing land, preventing the City from identifying better-suited industrial land elsewhere.

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Need for Additional Tax Base and Jobs	Commercial development provides some of the highest tax base in a community, and it provides jobs in the economy that serve a need. Some retailers pay better wages and benefits than industrial jobs. Retail jobs also provide an opportunity for people entering the workforce or seeking additional employment opportunities.
Provide the residential neighborhoods in this Study Area with a grocery store.	This area has been identified as a food desert for the residential neighborhoods in the area. Neighborhood serving commercial is planned for in the Three Mile Lane Area Plan where high density residential development is planned. However, it is rare to find a small scale grocery store, such as Harvest Fresh or Sprouts that is willing to locate in neighborhood serving commercial sites unless they are part of a larger business district, such as downtown McMinnville, or a very hjgh density residential development, such as Orenco Station, as there is not enough demonstrated customer traffic to offset the low profit margin of groceries. Often convenience stores, such as Circle K will locate in these areas if they have road visibility.

Capping the Size of Retail in the recommended Retail Center Site. Recently Friends of Yamhill County introduced the discussion of capping the size of retail allowed in the Retail Center site of the Three Mile Lane Area Plan. A discussion on capping the size of retail needs to be conducted in a very thoughtful manner as there is the potential for the perception of bias and targeting without basis a property owner or property.

Retail size caps are often discussed in communities in one of two ways:

1) Overall value system in the community that they do not want to allow retailers over a certain size in their community at all as a guiding principle, and then the retail size cap applies to all land within the city limits; or

2) A specific area has systemic constraints that would not support larger retailers – often this is transportation infrastructure constraints. To apply a retail size cap in this particular instance there will need to be factual basis supporting that the site constraint exists, and it is in the best interest of the community to institute a retail size cap on the property. Presumably that same transportation constraint would also exist for other land-uses on the site and all land-uses that generated that type of traffic impact would not be allowed.

One of the implementation action items in the Three Mile Lane Area Plan is to amend the Three Mile Lane Overlay District to include design and development standards that represent the values of the community for this area. That was intended to occur after the adoption of the Three Mile Lane Area Plan through a comprehensive review and evaluation process conducted by a project advisory committee.

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Staff recommends that if the City Council wants to proceed with this discussion prior to adoption of the Three Mile Lane Area Plan then it should either direct the existing Three Mile Lane Area Plan Project Advisory Committee to explore that discussion or establish a new Project Advisory Committee to do so.

Discussion:

City Council will be deliberating on a Plan document and comprehensive plan policy that implements that plan document in future planning processes. The Plan has been recommended to the City Council by a Project Advisory Committee and the Planning Commission after three years of development.

Considerations:

- *This is a plan meant to accommodate growth through 2041 when McMinnville is forecasted to be a community of 45,000 people. It plans for needed housing, expanded commercial options, living wage jobs, an expanded health campus for future community medical needs, expanded parks, trails, bicycle/pedestrian connectivity, and continued tourism development.*

- *The transportation improvements identified in the Three Mile Lane Area Plan will be needed whether the Three Mile Lane Area Plan is adopted or not adopted as they are the needed improvements for the development of the study area as currently planned and envisioned.*

- *Highway 18 is predicted to get more congested whether the Three Mile Lane Area Plan is adopted or not adopted as the transportation modeling shows a v/c ratio of 0.74 and 0.63 at the intersections of Norton Lane and Highway 18 and Cumulus Avenue and Highway 18 with development of the study area through 2041 as currently planned and envisioned.*

- *The Plan was developed by a Project Advisory Committee and recommended to the city for adoption. The Plan was reviewed and recommended to the City Council for adoption by the Planning Commission. The Plan has been endorsed by the Oregon Department of Transportation, the McMinnville Chamber of Commerce and McMinnville Economic Development Partnership. Friends of Yamhill County and 1000 Friends have expressed their opposition to the "Mixed-Use Town Center" and have encouraged their membership to do the same. Residents not affiliated with these groups appear to be divided in their support and opposition to the plan especially in regards to the proposed "Mixed-Use Town Center".*

- *The Plan is compliant with state land-use goals, state and local transportation standards, and the McMinnville Comprehensive Plan.*

- *Adopting the Plan is a policy decision for the City Council.*

Public Testimony: The record demonstrates that approximately 125 people and 7 organizations have provided oral and/or written testimony. (Please see Attachment C). Individual public testimony has focused primarily on the proposed commercial site, (Mixed-Use Town Center), and whether it was needed to serve McMinnville's residents, and whethert it reflected the community sense of place that

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McMinnville wanted to maintain as it grows. City Council received significant public testimony both for and against the proposed commercial site, from both city residents and people who do not live within the city limits.

Several people provided multiple testimonies over the course of the five different public hearings. Those who testified the most often were in opposition to the proposed "Mixed-Use Town Center" site.

The Oregon Department of Transportation, the McMinnville Chamber of Commerce and McMinnville Economic Development Partnership submitted testimony in support of the Plan. The Yamhill County Parkway Committee submitted testimony expressing their concerns about how the negative press surrounding the consideration of adopting this Plan might impact their ability to secure funds for the future Yamhill County Bypass needs. The Chehalem Valley Chamber of Commerce submitted testimony supporting the Yamhill County Parkway Committee's testimony. The Oregon Department of Aviation submitted testimony expressing their concerns about locating residential development adjacent to the McMinnville Airport. And the Friends of Yamhill County and 1000 Friends of Oregon submitted testimony with recommended amendments to the language of the Plan and opposing the proposed commercial "Mixed-Use Town Center" site.

Compliance with the 1996 Oregon Highway Corridor Refinement Plan: The Three Mile Lane Area Plan follows the phasing of improvements outlined in the 1996 Oregon Highway Corridor Refinement Plan. The 1996 Oregon Highway Corridor Refinement Plan was predicated on a system of phasing in transportation improvements as needed based on the growth that occurred in the study area.

> *"The (Plan) may be phased in over the twenty-year period of the plan. It can be implemented in stages which coincide with development. If development is delayed due to international, national or statewide changes in economic conditions, these stages can also be delayed."* Executive Summary, page 1, ***1996 Oregon Highway Corridor Refinement Plan.***.
>
> *"Given the financial framework that exists today, the capacity to phase the improvements was considered an important and major practical factor. Therefore, the TAC developed a plan which constructed in three phases. Implementation of the phases is triggered by anticipated degradations in levels of service."* Solutions, page 32 of the ***1996 Oregon Highway Corridor Refinement Plan.***

The plan ran two different transportation scenarios of growth. One with the existing UGB at the time (which is not much different than what exists in the study area today), and one with a substantially expanded UGB, 550 additional acres of housing and commercial land to meet a forecasted need in McMinnville. The expanded UGB has not materialized in the study area. It is estimated that McMinnville is currently in Phase 1 of the ***1996 Oregon Highway Corridor Refinement Plan.***

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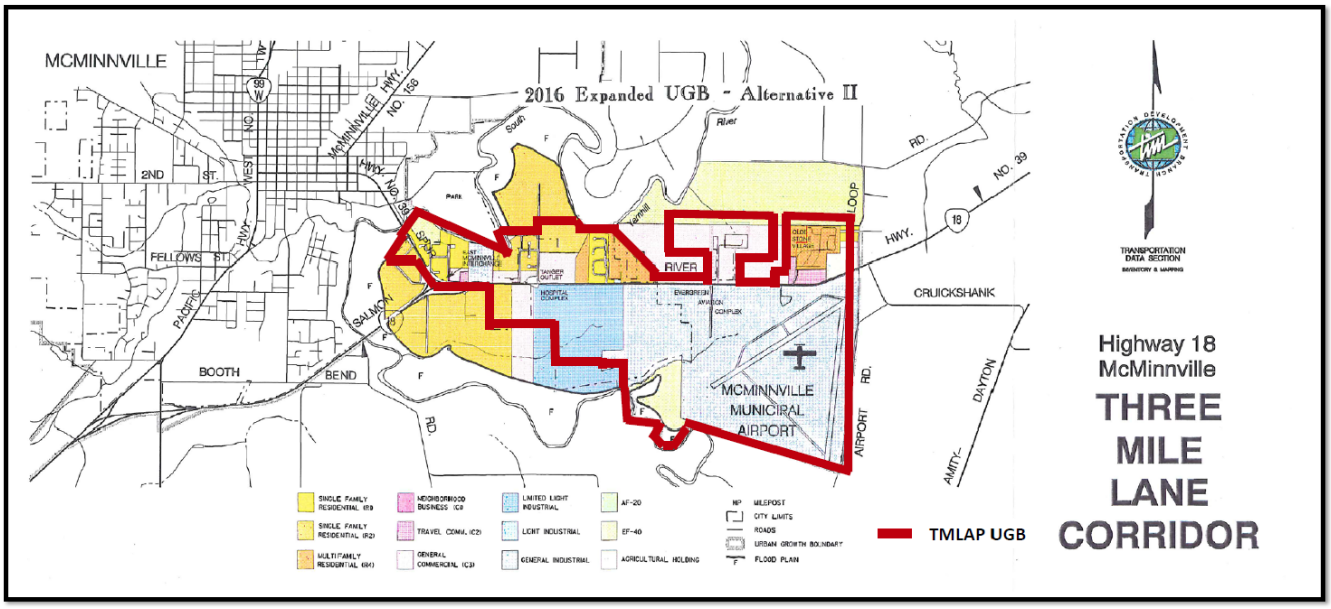


The assumption was that McMinnville would have much more growth in 2016 than it does today or is expected to have by 2041, especially in this area. 100s of additional acres of UGB land that never materialized.

Suggested Plan Amendments: Attachment B to this staff report provides a review of the suggested amendments provided in the public testimony and the ones that staff incorporated into the September 13, 2022, Three Mile Lane Area Plan for consideration. Suggested amendments were reviewed through a lens of what clarifies the overall intentions of the Plan and the Planning Commission and PAC recommendation and what is considered a substantive change to the Planning Commission and PAC recommendation to the City Council.

Commercial Site, "Mixed-Use Town Center": The most controversial element of the Three Mile Lane Area Plan has been the "Mixed-Use Town Center" site. This is a 40 – 60 acre site (modeled as 33 net buildable acres) that is intended to provide additional commercial options for McMinnville residents as the community grows to 45,000 people in the next twenty years. It is also intended to help reduce the over 300,000 vehicle trips that McMinnville households take every year to access general merchandise in other communities that are not available in McMinnville as well as other retail leakage that was illustrated in a 2019 market analysis. And it is intended to help fund the infrastructure needed to develop the industrial acreage around it that has proven cost prohibitive to industrial development in the past forty years.

The proposed site has generated a lot of public testimony both in opposition and in support. There have been concerns about what the development would look like in terms of building and site development. There have been concerns about the transportation impact to Highway 18. And there have been concerns about the overall premise of big box retail in McMinnville. Additionally, the City Council has heard from McMinnville households with families that due to lack of options locally are forced to shop in other communities for items that their families need.

At this point, it clearly is a policy decision for City Council as to whether or not to move forward with the PAC and Planning Commission recommendation for the "Mixed-Use Town Center". And if so, what would moving forward entail? Policy direction that limits retail tenant sizes overall and creates a retail cap for all future retailers in McMinnville that would alleviate the concerns of people who do not believe that

Attachments:
- Attachment A: Three Mile Lane Area Plan (September 13, 2022)
- Attachment B: Memorandum – Review of Suggested Amendments from Public Testimony
- Attachment C: Memorandum – Final List of Public Testimony
- Attachment D: Public Engagement Record

ideologically "big box retail" is appropriate for McMinnville; or specific design and development standards to alleviate the concerns that people have with the overall aesthetics of other commercial developments; and if transportation impact is a concern, does the City institute a trip limitation on the property in question and apply it to any development that occurs there – commercial, industrial or residential? What standard would be used for the trip cap?

Compliance with State Land Use Goals: The *Three Mile Lane Area Plan* complies with and furthers the following state land use goals: Goal 1 – Citizen Involvement; Goal 2: Land Use Planning; Goal 5 – Natural Resources, Scenic and Historic Areas, and Open Spaces; Goal 8 – Recreational Needs; Goal 9 – Economic Development; Goal 10 – Housing; Goal 12 – Transportation; and Goal 14 – Urbanization;

Specific Compliance with State and Local Transportation Standards: The *Three Mile Lane Area Plan* is compliant with both state and local transportation standards, including the *Oregon Highway Plan* and Oregon Administrative Rules 734-051.

Compliance with McMinnville Comprehensive Plan Policies: The *Three Mile Lane Area Plan* furthers McMinnville's Comprehensive Plan policies for Natural Resources, Economy, Housing, Transportation, Urbanization and Citizen Involvement.

Note: Friends of Yamhill County provided public testimony that the Plan was not compliant with the McMinnville Comprehensive Plan due to the following two comprehensive plan policies.

21.02 The City shall encourage and support the start up, expansion or relocation of high-wage businesses to McMinnville.

21.03 The City shall support existing businesses and industries and the establishment of locally owned, managed, or controlled small businesses. (Ord.4796, October 14, 2003

However, the Plan does encourage and support the start-up, expansion or relocation of high wage businesses in McMinnville with the Innovation Center concept. And the Mixed-Use Town Center, the Innovation Center and the mixed-use neighborhood serving commercial developments all could support existing businesses and industries and the establishment of locally owned, managed, or controlled small businesses.

What the Plan also does though is respond to the following policies which were not identified by Friends of Yamhill County in their testimony in this same goal section of the McMinnville Comprehensive Plan, as well as several other sections of the McMinnville Comprehensive Plan that will be provided as a future findings document per the direction of the City Council.

21.00 Commercial uses and services which are not presently available to McMinnville residents will be encouraged to locate in the City. Such uses shall locate according to the goals and policies in the comprehensive plan.

21.01 The City shall periodically update its economic opportunities analysis to ensure that it has within its urban growth boundary (UGB) a 20-year supply of lands designated for commercial and industrial uses. The City shall provide an adequate number of suitable, serviceable sites in appropriate locations within its UGB. If it should find that it does not have an adequate supply of lands designated for commercial or industrial use it shall take corrective actions which may include, but are not limited to, redesignation

of lands for such purposes, or amending the UGB to include lands appropriate for industrial or commercial use. (Ord.4796, October 14, 2003)

21.02 The City shall encourage and support the start up, expansion or relocation of high-wage businesses to McMinnville.

1. The City shall coordinate economic efforts with the Greater McMinnville Area Chamber of Commerce, McMinnville Industrial Promotions, McMinnville Downtown Association, Yamhill County, Oregon Economic and Community Development Department, and other appropriate groups.

2. Economic development efforts shall identify specific high-wage target industries and ensure that adequately sized, serviced, and located sites exist within the McMinnville urban area for such industries. (Ord.4796, October 14, 2003)

21.03 The City shall support existing businesses and industries and the establishment of locally owned, managed, or controlled small businesses. (Ord.4796, October 14, 2003)

21.04 The City shall make infrastructure investments that support the economic development strategy a high priority, in order to attract high-wage employment. (Ord.4796, October 14, 2003)

21.05 Commercial uses and services which are not presently available to McMinnville residents will be encouraged to locate in the city. Such uses shall locate according to the goals and policies in the comprehensive plan. (Ord.4796, October 14, 2003)

The results of the *Three Mile Lane Area Plan* is an updated mix of land-uses that serve McMinnville's housing and employment needs, as well as a transportation facilities plan on Highway 18 for the planning horizon of 2021-2041 that identifies needed projects to preserve mobility and safety in the area that is based on the transportation modeling and scenario analysis required by state regulations. These developments will create a Three Mile Lane Area that is more economically robust, draws increased tourism, provides more equitable transportation options, and increases opportunities for both current and future residents as McMinnville grows to a population of 45,000 people.

Staff Recommendation: Staff recommends considering the Plan as developed by the Project Advisory Committee and recommended by the Planning Commission with the amendments provided by staff based on the City Council public hearing process.

If the City Council wants to consider more detailed provisions for the recommended commercial site in the Three Mile Lane Area Plan (ie changing significantly the recommendation for the "Mixed-Use Town Center"), staff recommends that the City Council send it back to the Project Advisory Committee for further dialogue, evaluation and recommendations. If further analysis is required to help the City make a decision on the Plan, staff recommends that the City Council authorize the appropriate resources to contract for that analysis to support the Project Advisory Committee.

Attachments:

- Three Mile Lane Area Plan, September 13, 2022
- Review of Suggested Amendments from Public Testimony
- Final List of Written Public Testimony Received
- Public Engagement Record

Attachments:

- Attachment A: Three Mile Lane Area Plan (September 13, 2022)
- Attachment B: Memorandum – Review of Suggested Amendments from Public Testimony
- Attachment C: Memorandum – Final List of Public Testimony
- Attachment D: Public Engagement Record

Fiscal Impact:

This effort was funded by a Transportation Growth Management grant from Oregon Department of Transportation and Department of Land Conservation and Development.

City Council Options:

Per Section 17.72.130 of the McMinnville Municipal Code, the City Council has the following options:

1) Adopt the Plan as recommended by the Planning Commission with the amendments recommended by staff based on the City Council public hearing process.

2) Adopt the Plan as recommended by the Planning Commission with the amendments recommended by staff based on the City Council public hearing process, and provide additional amendments.

3) Send the Plan back to the Project Advisory Committee for further dialogue with specific direction.

4) Elect not to move forward with the Three Mile Lane Area Plan adoption.

Staff is looking for City Council direction and will provide an Ordinance and Findings Document for a future meeting based on the direction provided by City Council.

Attachments:

- Attachment A: Three Mile Lane Area Plan (September 13, 2022)
- Attachment B: Memorandum – Review of Suggested Amendments from Public Testimony
- Attachment C: Memorandum – Final List of Public Testimony
- Attachment D: Public Engagement Record

City of McMinnville

Three Mile Lane Area Plan

September 13, 2022

Citizen Advisory Committee:

Planning Commission	*Lori Schanche*
City Council	*Zach Geary* *Scott Hill* *Wendy Stassens*
Representatives of Property and Business Owners in the Study Area	*Robert Banagay* *Paul Davis* *Danielle Hoffman* *Peter Hoffstetter* *Kit Johnston* *Stewart Kircher* *Chris Norville* *Alan Roodhouse* *Chris Shelby* *Mary Stern*
Partner Agencies	*Scott Cooper – MEDP* *Kitri McGuire – Visit McMinnville* *Gioia Goodrum – McMinnville Chamber of Commerce*
Community Stakeholders	*Courtney Cunningham* *Ken Denier* *Alan Fox* *Phil Frischmuth* *David Hayes* *Galen McBee*

Technical Advisory Committee:

Planning Staff	*Heather Richards* *Jamie Fleckenstein* *Chuck Darnell* *Tom Schauer* *Adam Tate*
Engineering Staff	*Mike Bisset*
Parks and Recreation Staff	*Susan Muir*
McMinnville Water and Light	*John Dietz*
ODOT	*Michael Duncan* *Dan Fricke* *Keith Blair* *Dorothy Upton* *Jenna Berman* *Kristie Gladhill*
DLCD	*Angela Carnahan*
YCTA	*Cynthia Thompson*

Consultant Team:

Angelo Planning Group
David Evans and Associates, Inc.
Leland Consulting Group
Walker Macy

McMinnville Three Mile Lane Area Plan

Contents

This Project is partially funded by a grant from the Transportation and Growth Management ("TGM") Program, a joint program of the Oregon Department of Transportation and the Oregon Department of Land Conservation and Development. This TGM grant is financed, in part, by federal Fixing America's Surface Transportation Act ("FAST-Act"), local government, and State of Oregon funds.

The contents of this document do not necessarily reflect views or policies of the State of Oregon.

INTRODUCTION

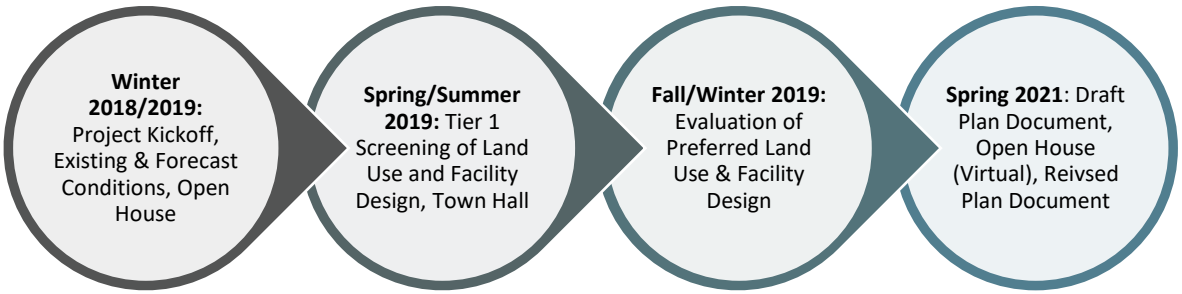
The Three Mile Lane area is a unique district in the southeast portion of the City of McMinnville. The area contains approximately 1,340 acres of land with a variety of existing land uses and several large vacant parcels. The Three Mile Lane Area Plan is intended to create an implementable vision for the area's future land uses and multi-modal transportation system.

As an Area Plan, the Three Mile Lane Area Plan shall serve as a guiding document for land uses and public facilities in the delineated area of this plan. Specific standards for development will be identified in McMinnville's Master Plans and Municipal Code.

Planning Process

The project began in Fall 2018, with an overarching objective of creating a plan that integrates land uses and a multimodal transportation system that serves both local and state transportation needs and provides active connectivity within the plan area as well as to the City's downtown core. The process of developing the Three Mile Lane Area Plan has been guided by the community at many points, including:

- Three Focus Group meetings
- Three Citizen Advisory Committee meetings
- Citizen Advisory Committee Design Charrette
- Property Owners Work Session & Case Studies
- Three Technical Advisory Committee meetings
- Two Community Open Houses
- A Town Hall Meeting



AREA DESCRIPTION

The Three Mile Lane area is shown in Figure 1. It contains roughly 1,340 acres in total with a wide range of existing uses, including the McMinnville Municipal Airport, Evergreen Aviation and Space Museum, the Chemeketa Community College (CCC) Yamhill Valley campus, Willamette Valley Medical Center, and existing residential neighborhoods. Along with these existing uses, the area contains a significant amount of vacant land within the City's Urban Growth Boundary (UGB). This Area Plan is intended to guide growth in a way that is consistent with the McMinnville community's desires and coordinated with the City's other planning efforts.

Figure 1. *Study Area Context*

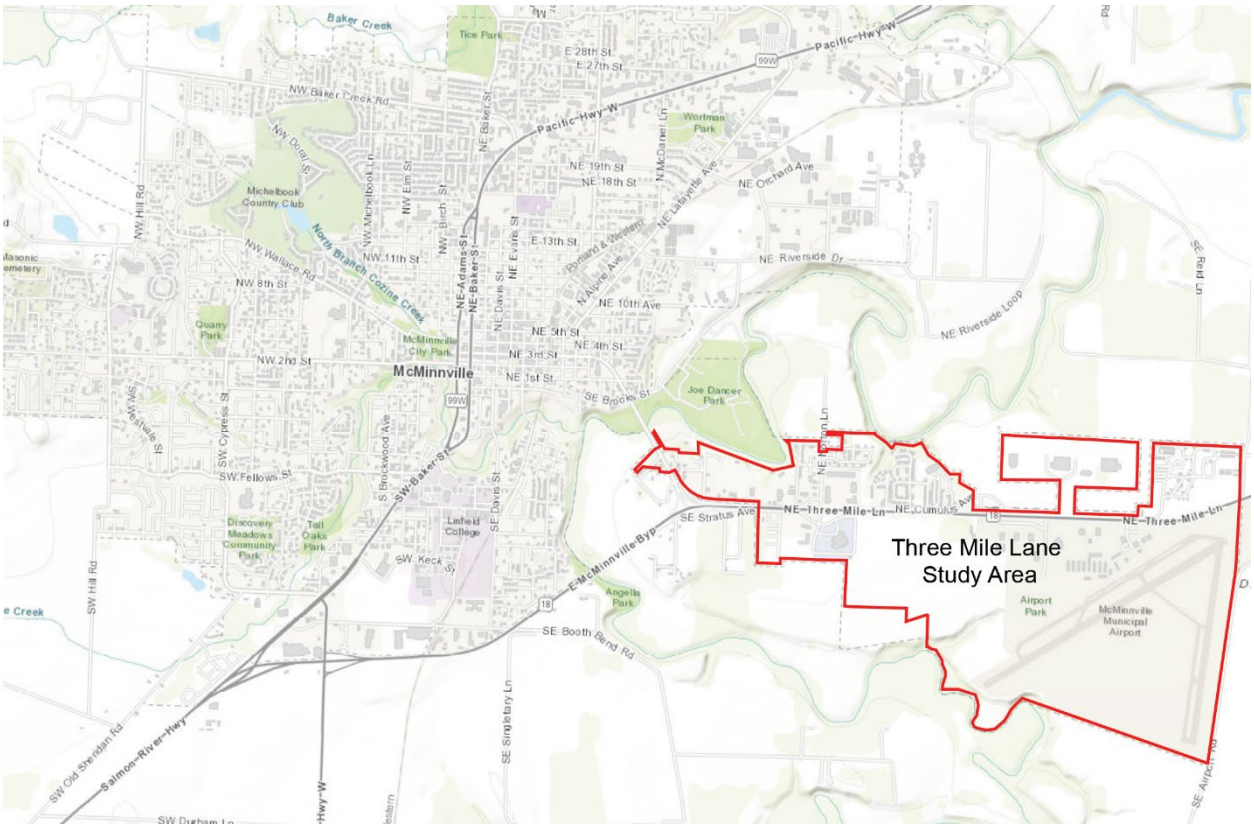
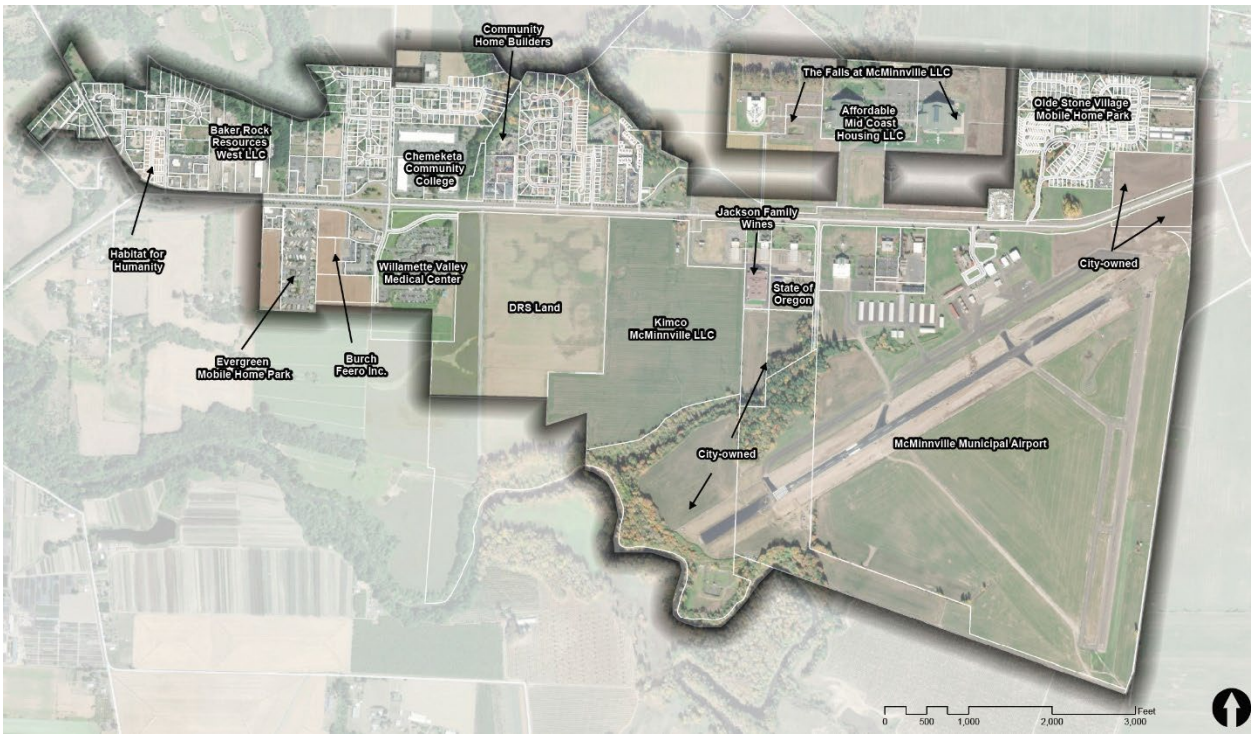


Figure 2. *Study Area*



Neighborhoods

The existing neighborhoods in the area include the land south of the Yamhill River Bridge, which connects the study area to downtown McMinnville; the Evergreen Mobile Home park and Olde Stone Village manufactured homes/RV park; and apartments and senior living communities north of Cumulus Avenue.

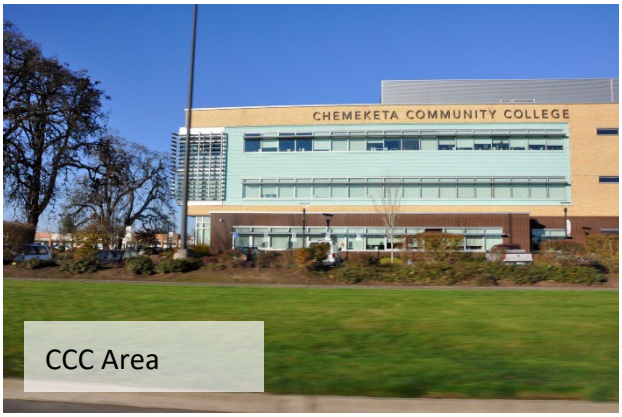
Within the residential and commercial areas on the north side of Three Mile Lane there are opportunities for new mixed-use development, creating varied, diverse, complete neighborhoods that provide different types of housing, access to green space, and connections to walkable services. A key element will be the integration of complete streets; those that prioritize safe walking and biking for people of different ages and allow travel between homes, jobs, services, and recreation.

Existing Residential Neighborhoods

Industrial

There are over 200 acres of vacant land in the Three Mile Lane area that are largely served by existing infrastructure and zoned for industrial uses. Most of this vacant land is found in a few large parcels, which could be ideal for large-scale and cohesive planned development.

Amenities and Attractions



Amenities and attractions in the area include the airport; Evergreen Space & Aviation Museum, water park, and event center; and the Yamhill River. The Three Mile Lane area is also host to several large employers, including medical centers and clinics, and industrial and office sites. These amenities and attractors serve McMinnville residents as well as tourists from outside the city. For nearby residents, safe and convenient connections to amenities will be key as the area develops, as will creating the opportunity for new amenities that serve daily needs and fuel economic development. There is a clear opportunity to provide a formal welcome to McMinnville as a marked destination with a distinct personality.

Zoning

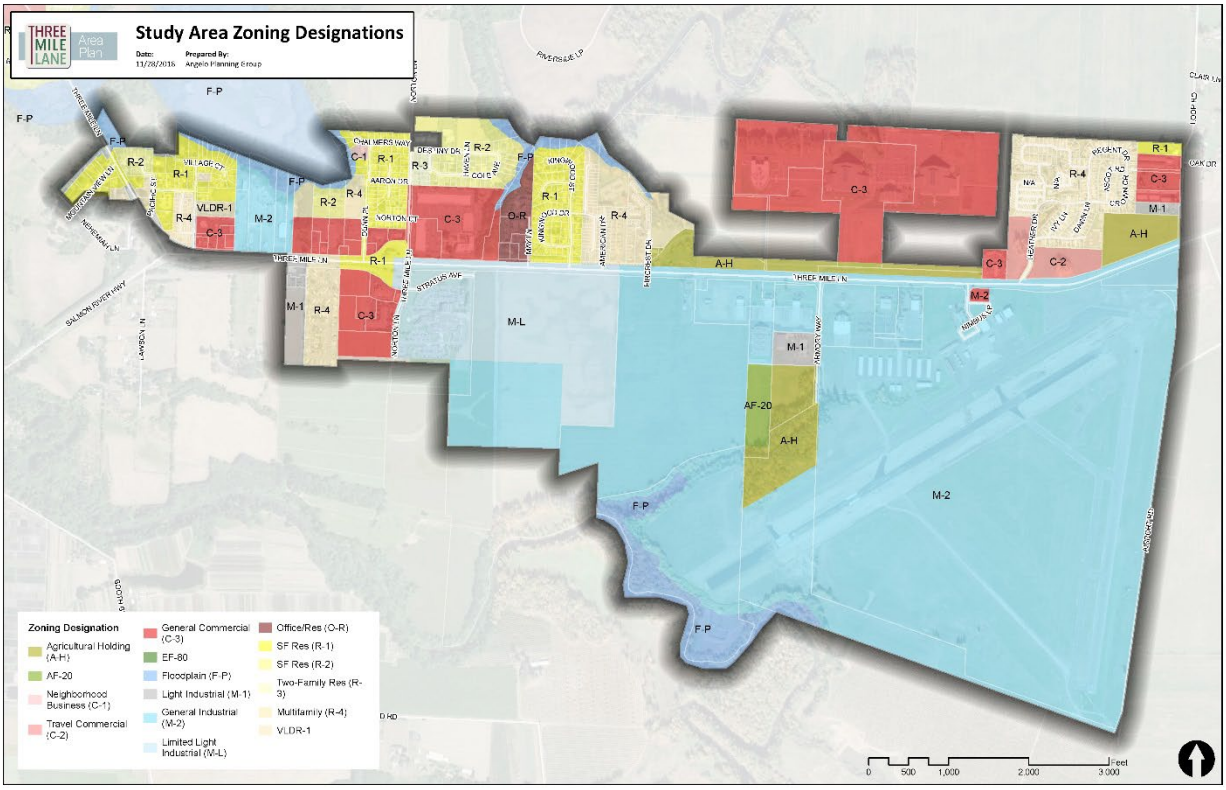
The Three Mile Lane area contains land in several zoning designations shown in Figure 3, as follows:

- **Industrial.** M-L provides for industries with limited external impact in an attractive setting; M-1 is for industrial uses that require buffering from other uses and environmentally sensitive areas, it includes a wide range of industrial uses; M-2 allows all uses in M-L and M-1, but also allows general manufacturing and airports as well as “leisure time activities” as conditional uses.
- **Residential** R-1 is low density, single family residential; R-2 single family with a slightly higher density; R-3 allows two-family dwellings throughout the zone; R-4 allows multi-family dwellings and condos.
- **Commercial.** C-1 is smaller-scale neighborhood services; C-2 provides for travel-related uses like lodging and gas stations; C-3 accommodates a wide range of uses like big box stores and theaters.

- **Agricultural Holding.** 49 acres held to provide for the continued practice of agriculture. Permitted uses are limited to farming, single-family dwellings, and sewage pump stations. Parks are allowed as conditional uses.
- **The Three Mile Lane Planned Development Overlay** covers the entirety of the study area. The overlay district was adopted in 1981 (Ordinance No. 4131) and amended in 1994 (Ordinance No. 4572). As stated in the original ordinance, the overlay was established to ensure high quality design, compatibility of living and working environments, provision of open spaces and parks, and buffering of residential uses from the highway. The 1994 amendments were adopted to replace outdated policies, as well as to regulate commercial signage along the Three Mile Lane corridor. The overlay ordinance outlines a number of policies related to the development of properties in the Three Mile Lane area, including provisions for setbacks, access, landscaping and buffering, and desired housing types. The ordinance also outlines a set of detailed provisions related to commercial signage. While the Three Mile Lane Planned Development Overlay regulates certain aspects of development within the study area (highway setbacks, access, signage, etc.), development in this area is largely regulated by the underlying base zones.

Appendix B contains a detailed evaluation of the existing zoning within the study area.

Figure 3. *Three Mile Lane Area Zoning Designations*



Transportation

The existing street network in the Three Mile Lane area includes Three Mile Lane (OR 18), minor collectors Cumulus Ave and Norton Lane, and a network of local streets that are not well connected.

Figure 4. *Street Network Functional Classification*

Vehicular Traffic. There are operational deficiencies at the two intersections at the ends of the study area: Three Mile Lane at First Street, and OR 18 at Cruickshank Road. The two major signalized intersections on OR 18 at Norton Lane and Cumulus currently operate well within the mobility targets outlined in the Oregon Highway Plan. There is a notable crash history at the intersection of OR 18 and Cruickshank Road. Though it is not within the city limits and city jurisdiction, this intersection is a logical location to consider in this planning effort relative to safety mitigation and opportunity for potential gateway streetscape improvements.

Transit. The Yamhill County Transit Authority (YCTA) provides limited (hourly) service in the study area on Route 2, with direct links to downtown McMinnville and the city Transit Center. If and when YCTA service increases to a 30-minute frequency, future transit access will improve within the Three Mile Lane area.

Bicycle Facilities. Today the area has very limited bicycle facilities, and frequently the only option available to cyclists is to ride in general purpose travel lanes. While the major streets in the area are generally flat with good pavement conditions, vehicular traffic volume is relatively high and travel is at higher speeds (35 mph and higher).The lack of separate bike lanes, buffered bike lanes, or separated facilities contributes to a poor overall environment for cyclists seeking to travel within the study area network. Creating attractive, low-stress bicycle facilities on key routes within the study area will require examining traffic calming design adaptations and lower speed limits, and implementing buffered bike lanes or separated pathways will make cycling more attractive and safe.

Pedestrian Facilities. Many of the key existing streets and intersections in the area contain essential but limited pedestrian features. Some of the sidewalks are older, but functional and the system provides a baseline, if minimal, connected network within the study area. Linkage to the McMinnville city center is limited to the Yamhill River Bridge. The existing pedestrian realm lacks important features that would otherwise contribute to more safe and inviting walking environments on Norton Lane, Cumulus Avenue, and Stratus Avenue. The original factory outlet mall development building is a barrier to more direct pedestrian and bicycle travel along Cumulus

Avenue and the crossing of Norton Lane, making it more difficult for residents east of Norton Lane to walk and cycle to McMinnville's central city.

Natural Features

The Three Mile Lane Area is bounded to both the north and south by the South Yamhill River and its associated natural areas, including several mature tree stands with defining character. Airport Park to the south includes two loop trails that cross a small tributary stream that flows into the South Yamhill River. This park is also defined by dramatic views to Mt. Hood and Mt. Jefferson on sunny days and features several pieces of quirky concrete artwork. People living and working in the Three Mile Lane area would benefit greatly from the preservation of and connection to these natural features.

Mature Stands of Trees within the Three Mile Lane Area

Example of Nature Trail Along Sensitive Riparian Area

Economy

~~McMinnville is poised to capitalize on strong retail demand and its location in the region. The McMinnville retail trade area extends all the way to the Oregon Coast due to the lack of prominent commercial centers between the Willamette Valley and the coast. However, much of this retail market remains untapped, and the Three Mile Lane study area is poised to capture a significant portion of demand with a diverse array of commercial development. Such development would help~~

~~foster a sense of place, provide amenities for residents and visitors, and have a significantly greater economic impact than a development build-out comprising simply of traditional industrial.~~

In 2019, McMinnville adopted an Economic Development Strategic Plan (*MAC Town 2032 – Economic Development Strategic Plan*). As stated in adopting Resolution 2019-16, the plan identifies three foundational goals and strategies that are meant to be broadly beneficial across multiple industry sectors:

1. Accelerate Growth in Living Wage Jobs Across a Balanced Array of Industry Sectors
2. Improve Systems for Economic Mobility and Inclusion
3. Maintain and Enhance our High Quality of Life

The plan also identifies five target sector goals and strategies that are intended to pursue opportunities and improve outcomes within clusters or sectors of related industries:

1. Sustain and Innovate within Traditional Industry and Advanced Manufacturing
2. Foster Opportunity in Technology and Entrepreneurship
3. Be a Leader in Hospitality and Place-Based Tourism
4. Align and Cultivate Opportunities in Craft Beverages and Food Systems
5. Proactively Assist Growth in Education, Medicine and Other Sciences

A detailed market analysis for the area was prepared and is included in Appendix B. Some of its key points are discussed below.

- **Ownership residential.** The market is strong for single-family, with high home values, household incomes, sales volumes, absorption, and construction activity. The single-family market is very tight, with strong absorption but very little inventory currently listed for sale. The quantity depends largely on the City's vision for the area, applicable zoning, and buildable land.

- **Rental Residential.** Despite solid national development prospects and strong market area demand due to high growth, low-rise rental apartments and multiplexes are likely the primary building types feasible in the study area because of relatively weak market characteristics. Existing rents in the region are relatively low and may struggle to attract prominent multifamily developers I the region due to the continuously rising nature of construction costs. Single-family homes, multiplexes, townhomes, cottage clusters, and low-rise "garden" apartments are all residential development types that would likely be feasible in the study area in the near-term. Higher-density developments may require additional incentives or other interventions

- **Retail.** The study area is well-positioned for new retail development., particularly large-format retail. Neighborhood-serving retail may be a mid- to long-term aspiration when additional residential construction occurs. Retail prospects are relatively strong for certain retail sectors, despite relatively weak market conditions (including rent, vacancy, absorption, etc.). The Three Mile Lane study area likely checks off many site selection criteria and market characteristics typically desired by prospective retailers. While there are few retailers currently in the area, desired physical characteristics, such as visibility, vacant developable land, and ease of access are all present. Further, McMinnville's central location

between the Oregon Coast, the Portland Metro, and Salem provides access to a wide variety of markets. Significant household growth and the burgeoning tourism industry will continue to improve retail prospects.

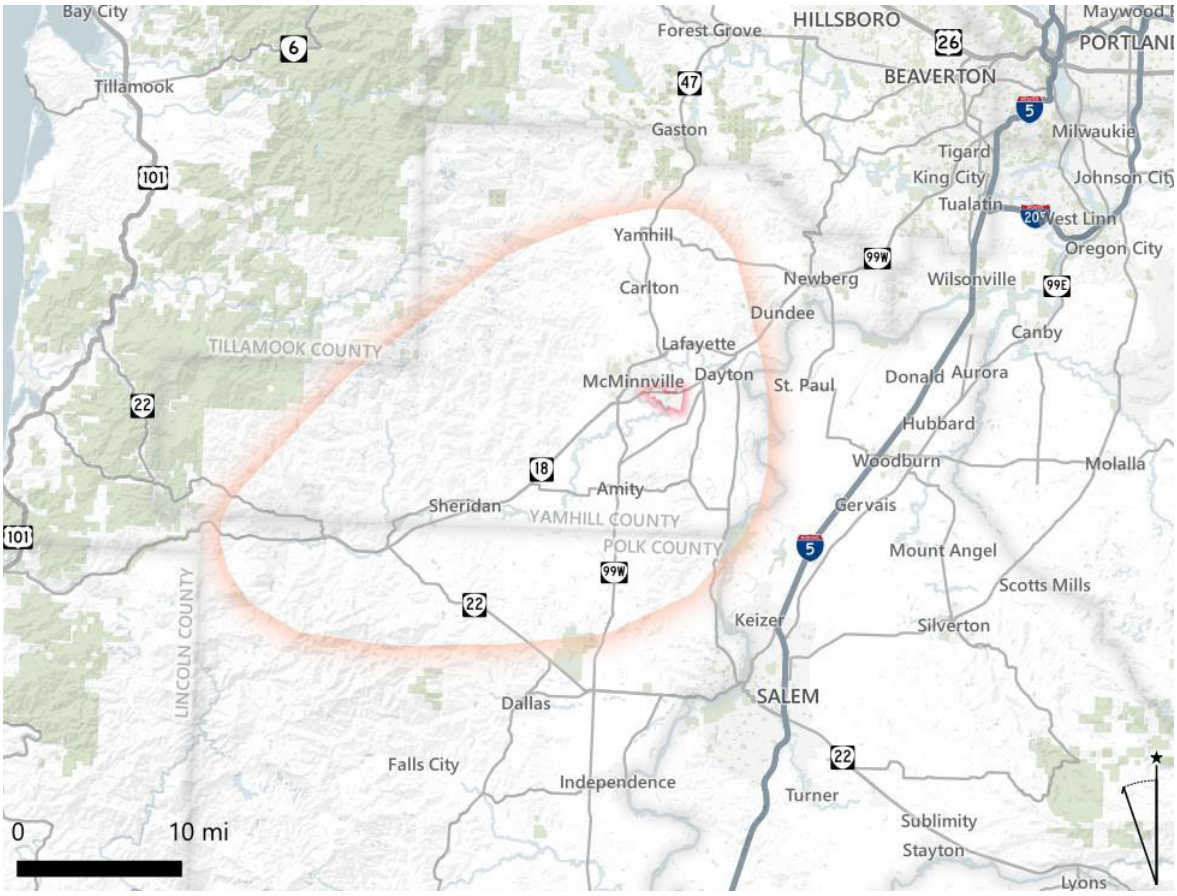
- **Office.** The office market is relatively weak, and the absorption of significant speculative new development should not be expected. Regionally, however, projections show significant employment growth in education, healthcare, and professional and business services – all of which drive the most demand for new office construction. Opportunities may arise because of McMinnville's high quality of life, and the Three Mile Lane Corridor's proximity to the airport and institutional users, such as healthcare and education. ~~However, opportunities may arise because of McMinnville's high quality of life, and the Three Mile Lane corridor's proximity to the airport and institutional users, such as healthcare and education.~~

- **Industrial.** Industrial users are likely to find the Three Mile Lane area an attractive location given its separation from incompatible land users (like residential), ease of access, highway location, level terrain, and proximity to the airport. The industrial market remains strong due to the growth of agriculture, food and beverage production, and manufacturing. Continued growth may generate demand in the study area, but development may negatively impact prospects for other land uses, such as lodging and multifamily due to concerns over air and noise pollution as well as truck traffic.

- **Lodging** is likely to be a significant development type over the long-term, but the area may struggle to attract hotel developers due to its existing industrial character, lack of walkable amenities, and isolation from downtown. An assessment of the opportunities to capture demand associated with the burgeoning $7 billion wine industry in the Willamette Valley and related tourism development requires further, more nuanced analysis.

- **Tourism** is a booming industry, particularly with regard to the wine industry, increasing market pressure for the new construction of compatible uses, such as experiential retail and restaurants, lodging, and craft industrial, as well as recreational amenities, such as trails and parks, that combined help to create an authentic, vibrant place

Figure 5. *Three Mile Lane Market Area*



Source: TIGER, Leland Consulting Group

COMMUNITY VISION AND GOALS

An aspirational vision statement, community goals and objectives, and potential criteria to evaluate land use and transportation options for the Three Mile Lane area were developed early in the project. They were created to articulate the Three Mile Lane Area Plan's desired outcomes and help in the evaluation of options for the area. Plan objectives were further refined using McMinnville's Great Neighborhood Principals.

Three Mile Lane Vision and Goals

The Three Mile Lane District is a vibrant community that serves as the gateway to Downtown McMinnville and Oregon Wine Country. Employment opportunities, attractive housing options, and tourist destinations characterize the area. Residents and workers enjoy safe and efficient options to travel to Downtown McMinnville and benefit from close proximity to a variety of goods and services, all easily reached by motorist, bicyclist, pedestrian, and transit rider alike. The connection to McMinnville's rich history and the surrounding landscape is reflected in urban design elements throughout the area, highlighting the uniqueness of this special place. The following goals capture the community's desire to enhance this special area. These goals are not in any particular priority order and should all be viewed as equal goals for the study area.

GOAL 1: ECONOMIC DEVELOPMENT - Support and enhance the district's economic vitality and marketability.

This plan aims to support development of significant industrial and commercial parcels within the study area, enhance existing business by diversifying goods and services available in the area, and increase tourism. Alternatives will be evaluated qualitatively for how well they address the area's development/redevelopment potential.

GOAL 2: COHESIVE LAND USE PLAN - Provide opportunities for a complementary mix of land uses, consistent with the vision of a diverse and vibrant district.

The study area contains several existing residential neighborhoods, including assisted-living and manufactured home residences, as well as major employers and tourism destinations. This plan aims to provide a mix of land uses that support one another to create a unique part of the city.

GOAL 3: TRANSPORTATION - Enhance multi-modal connections throughout the district.

This plan aims to create a complete, multimodal transportation network that serves the north and south side of OR 18 within the district, and that connects the business community, the hospital, residential neighborhoods and tourism amenities to each other and to the city center. Alternatives will be evaluated through criteria measuring transportation safety and performance for all modes of travel: pedestrian, bicycle, transit, freight, and personal vehicles.

GOAL 4: AESTHETICS AND DESIGN - Create an aesthetically pleasing gateway to the City of McMinnville

The study area is a primary gateway to the City of McMinnville. Alternatives will be evaluated qualitatively for how well they provide an identity for the district, reflect McMinnville's intrinsic character and highlight the landscape features of the district.

GOAL 5: RESIDENTIAL QUALITY OF LIFE - Improve the district for existing and future McMinnville residents in the area.

The City of McMinnville's Great Neighborhood Principles identifies amenities and facilities that should be present in all residential areas, including a variety of housing types, pedestrian and bicycle connectivity, preservation of scenic views and natural features, access to open space, and

access to commercial necessities. This plan aims to support those Great Neighborhood Principles for residents in the study area by providing multi-modal connectivity, single-family and multi-family housing, provisions for open spaces, and commercial amenities, such as grocery stores, restaurants, and more.

Great Neighborhood Principles

In April 2019, the City of McMinnville adopted the Great Neighborhood Principles into the City's Comprehensive Plan. Their purpose is to guide the land use patterns, design, and development of the places that McMinnville citizens live, work, and play. These 13 principles are listed below. Under each principle are specific policies that detail how these principles are expected to be expressed in a site and context-specific way within the Three Mile Lane Area.

1. *Natural Feature Preservation*
    - Strive to protect tree groves
    - Strive to protect individual trees
    - Protect riparian corridors and adjacent native landscape

2. *Scenic Views*
    - Provide and protect views to rolling hills and volcanoes
    - Provide visual and physical access to North Yamhill River
    - Orient streets and open spaces to views

3. *Parks and Open Spaces*
    - Connect to Galen McBee Airport Park
    - Connect to Joe Dancer Park
    - Create new gathering spaces that incorporate natural areas and views
    - Plant landscapes that incorporate natives and exhibit seasonal variation

4. *Pedestrian Friendly*
    - Provide a network of sidewalks and trails to connect people to key locations
    - Incorporate shade streets with mature tree canopy

5. *Bike Friendly*
    - Plan safe routes for residents and touring cyclists

6. *Connected Streets*
    - Connect to existing street grid in the Three Mile Lane area
7. *Accessibility*
    - Design new development for ease of use by all ages and abilities

8. *Human Scale Design*
    - Respect typical scale of commercial uses in McMinnville
    - Design to reflect the micro-climate—outdoor life, porches, balconies
    - Promote inclusion and interaction within the right-of-way
9. *Mix of Activities*
    - Encourage mixed-use development where feasible

10. *Urban-Rural Interface*
    - Reflect patterns of wine industry—eg, rows of vines, southern orientation, shelter belts of trees
    - Consider adjacency to agricultural fields and respect this heritage through careful transitions
    - Design simple roof forms (industrial and agricultural). Height and distinctive forms of silos can be inspiration
    - Consider functional site planning of vineyard and farm complexes as conceptual model for new development

11. *Housing for Diverse Incomes and Generations*
    - Allow for a mix of housing forms and types that serve a variety of household incomes and respect the current character of Three Mile Lane

12. *Housing Variety*

- Respect existing variety of housing types in Three Mile Lane and ensure diversity of design for future housing

13. *Unique and Integrated Design Elements*

- Ensure visibility from highway; Welcome to McMinnville
- Make functions of sites visible (airplanes, wine-making); continue expression of industry/making where applicable
- Aviation legacy: display large planes; consider sensation of low-flying planes, potential visual impact of sites from the air
- Consider local and/or sustainable materials for cladding and building structure (timber, corrugated steel cladding, red brick)
- Use vibrant color

THE THREE MILE LANE AREA PLAN

This section describes the land use, urban design, and transportation elements that will guide future development and planning decisions in the Three Mile Lane Area. These elements are part of the "Preferred Alternative," arrived at through conversation with the community at several online and in-person open houses and refined by City staff and stakeholders. The Area Plan's combination of desired uses and transportation connections achieves the community's vision and goals while uniquely realizing the City's Great Neighborhood Principles.

Land Use Summary

The Three Mile Lane Area Plan's land uses are shown in Figure 6. The defining characteristics south of the highway include a mixed-use high-density residential neighborhood with neighborhood serving commercial amenities west of the hospital, a large (40 - 60-acres) area envisioned as a future retail center ("Mixed-Use Town Center"), ~~and~~ a large (140 – 160 acres) site for a potential corporate "Innovation Campus" to the south of this retail center, and a trail system connecting all of these developments to the existing Airport Park. To the west, in areas near SE Norton Lane and the Willamette Valley Medical Center, opportunities for an expanded health care campus and offices ~~and medical uses~~ are envisioned. North of the highway is another proposed mixed-use high-density residential neighborhood with neighborhood serving commercial amenities west of the Physicians Medical Center ~~new mixed-use designation proposed~~ on the current Baker Rock site, continued development of the tourism attraction at the Evergreen Campus, ~~and~~ tourism commercial amenities on the site south of the Olde Stone Village at the eastern gateway to the study area, and a trail system connecting all of these developments to existing Joe Dancer Park.

The Three Mile Lane Area Plan is accompanied by context-sensitive urban design considerations that build on the Great Neighborhood Principles. These include:

- Avoid parking lots and blank walls on OR 18 edge
- Create a walkable retail development with a "town center" feel (as described in the following pages)
- Encourage orientation of industrial campus buildings to Yamhill River and maintain view corridors through campus
- Consider setting future development back from Yamhill River to reduce impacts
- Create grid of walkable streets
- Improve frontage roads for safer walking and biking
- Integrate new Evergreen campus development with architectural language of existing buildings and site landscape features, preserve views of oak forest
- Consider aviation-themed gateway features

Key features of the Area Plan include:

- **Walkable Retail Development.** A central feature is a sizable, (over 40-acre) retail center south of Three Mile Lane at Cumulus. The quality of this development's architecture and streetscape, the connectivity it provides to the street system south of OR 18, and generally, how well it responds and contributes to McMinnville's Great Neighborhood Principles will be key to the success of this plan in gaining public approval.

- South of this retail development is a prime location for a mix of corporate office and industrial users in an **Innovation Campus**. Due to its proximity to the Yamhill River, the campus has the potential for "Trail-Oriented Development," an increasingly popular amenity-driven development trend which offers future users and tenants an appealing orientation to views of natural features and use of outdoor space for employee wellness.

- West of the retail center and industrial campus site, a **flexible zone of mixed office or industrial** uses is offered, providing potential sites for users drawn by the synergy of being close to larger corporate users, with subcontractors or suppliers in office or light industrial spaces.

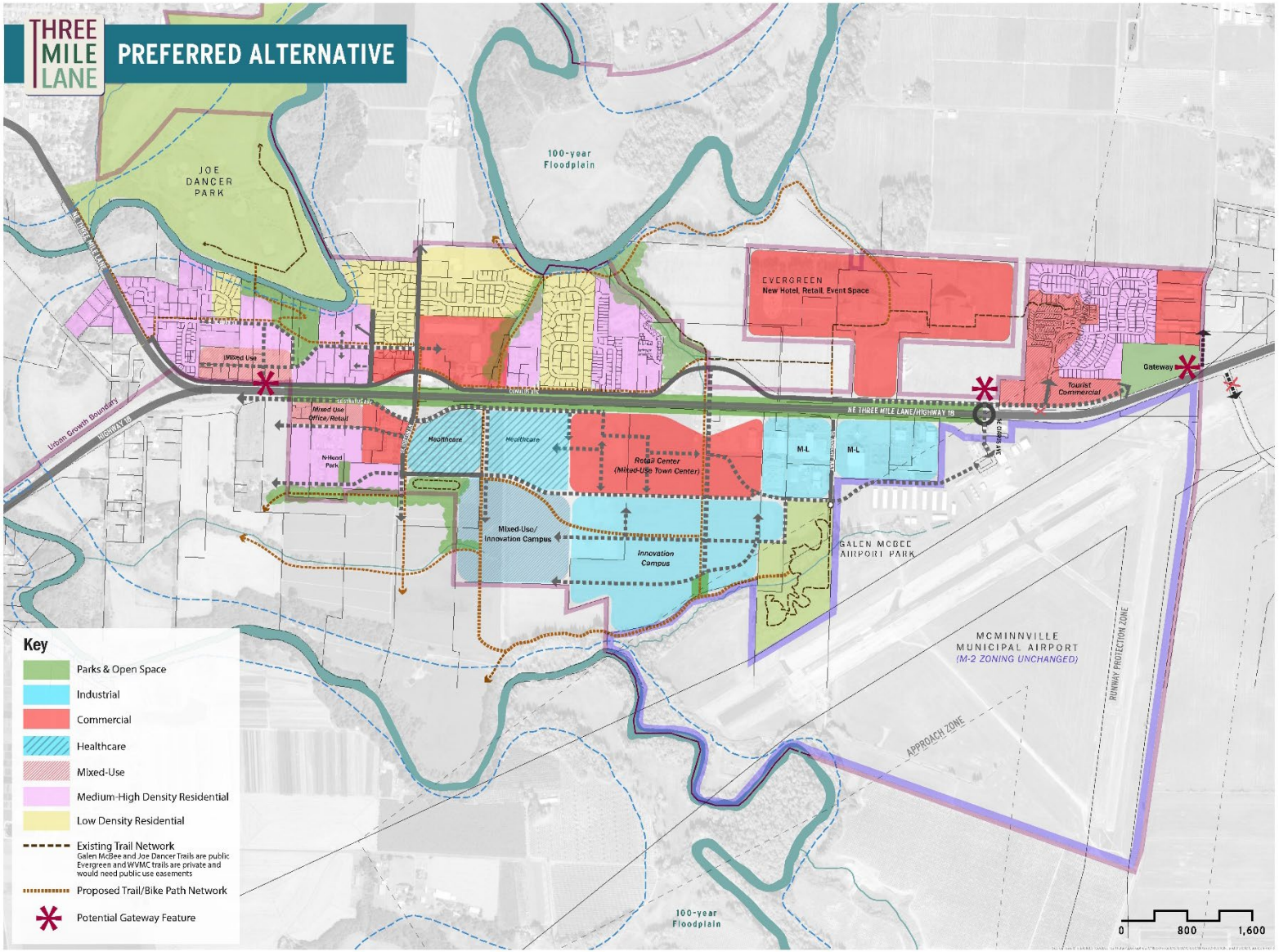
- **New mixed-use and health care-related uses** have been identified near the existing hospital. Housing, especially senior housing, is a very strong market opportunity. Building forms are expected to be horizontal mixed-use, rather than vertical mixed-use.

- The **Evergreen Tourism Area** is identified as a good location for new hotel, retail, and event space. The site is highly visible and suitable for a clustering of mutually beneficial uses. Travel-related commercial development is envisioned in the northeastern portion of the study area. This area is advantageously situated near the Evergreen complex, making it a good site for additional services and attractions for the traveling public.

- **New residential neighborhoods and continued development of existing neighborhoods** in locations in the western parts of the study area.

- **A cohesive trails system** that ties together major amenities and neighborhoods, with safe crossings of OR 18 and a potential connection to Joe Dancer Park.

Figure 6. *Three Mile Lane Area Plan (Replaced Map with Clarifying Map that Responds to Plan Nomenclature)*



Urban Design Elements

The plan features some distinct areas where change is expected to occur over time. North of Three Mile Lane, the most notable change is the mixed-use neighborhood designation in the northwest with high-density residential development and neighborhood-serving commercial amenities on Cumulus Avenue. South of the highway, land use designations that are distinctly different than what exists today include another mixed-use neighborhood designation in the southwest with high-density residential development and neighborhood-serving commercial amenities on Stratus Avenue, an expanded medical campus ~~medical commercial, office, and residential designations~~ near the Willamette Valley Medical Center, the commercial area between the medical campus and the McMinnville Municipal Airport, and the Innovation Center south of the commercial area. Specific features and design considerations for the Three Mile Lane's diverse areas are discussed in this section. Key urban design elements that are expected to be incorporated into future development are listed below, as well as illustrated in "precedent" images and conceptual site designs.

Mixed-use Area

The Three Mile Lane Area Plan envisions continued growth and development in the northwest of the study area between Cumulus Ave and the Yamhill River. Existing residential neighborhoods are anticipated to see gradual infill and redevelopment in this area. New households in the Three Mile Lane area will require and support local services. The improved transportation connectivity envisioned with the Three Mile Lane Area Plan will provide alternatives to OR 18 for local trips.

Locally-serving retail and services have been a major discussion item during this planning process. As the area continues to evolve, providing more opportunities for a mix of uses, employment, and tourism, the existing industrial site (Baker Rock Site) on NE Cumulus Avenue may prove to be a more suitable location for something other than a ready-mix concrete plant. Allowing for a variety of commercial and residential uses in this area can provide additional housing, locally serving retail and other amenities, and enhanced multi-modal transportation connectivity. This area is well-suited for mixed-use development because it is large enough to accommodate and separate several uses in a way that responds to different context conditions. The site is also mostly flat with potential for good connections to the east and west. This is a great site to explore a small Neighborhood Activity Center concept similar to what is identified in McMinnville's Comprehensive Plan and Zoning Ordinance. Although smaller in size than what the zoning ordinance would require, a planned development overlay with similar attributes and components is recommended.

Figure 7. *Mixed Use Area (Baker Rock Site) Conceptual Design*

Figure 7 shows this site, which extends between OR 18 and a steep bluff overlooking the North Yamhill River, two adjacencies that will shape its eventual development. ~~Most of~~ McMinnville's Great Neighborhood Principles ~~can~~ shall be honored through future site master planning. This infill development can protect natural areas and views, connect to parks and open spaces, provide a connected, bike and pedestrian-friendly neighborhood, and encourage mixed-use development with diverse housing types and unique, high-quality design. Retail or office uses are better suited to the more visible and accessible southern half of the site. Residential uses are best suited to the northern half, further away from OR 18, with views to the river and Joe Dancer Park. Vertical and geographical mixing of uses similar to a Neighborhood Activity Center as described in McMinnville's Comprehensive Plan and Zoning Ordinance should be considered as part of a planned development overlay for this site.

Key Urban Design Elements:

- Local street grid. Local streets can be logically extended through the site from the west (NE Atlantic) and the east (NE Dunn Place), creating access to the commercial and residential halves of the site, while a new central 'Main Street' can be extended north from NE Cumulus Avenue, bisecting the site and creating two crossroads intersections. The proposed street extending east-west across the northern half of the site follows the top of the bluff and should be designed as a well-landscaped parkway, with an adjacent multi-use trail which will eventually extend throughout the Three Mile Lane study area as a safe parallel route to OR 18.
- Building orientation. New buildings should be located to form an urban frontage, with no setbacks, at the intersections of local streets.
- Building and site design. Pedestrian-scaled ground floors, prominent entries, and canopies over sidewalks with street trees, on-street parking, and safe crossings. Surface parking

could include EV charging stations, bicycle parking and a transit stop and be located behind these frontages, separated from adjacent uses by well-landscaped green buffers.

- Natural features. Where the Main Street meets the bluff-top street, a public overlook can provide views to Joe Dancer Park and perhaps even a trailhead for a nature trail switch-backing down the bluff to a riverside trail system and a potential footbridge over the river connecting to the park and beyond to downtown. This could serve as a valuable pedestrian and cycling connection to downtown to supplement the new Three Mile Lane Bridge.

Tourist Commercial

The Evergreen complex continues to draw visitors to McMinnville who support other local businesses in the Three Mile Lane area and beyond. The Area Plan foresees the continuation and intensification of tourism-related uses as allowed by existing zoning designations. East of Evergreen, land is currently zoned for commercial uses along the highway and has the possibility of hosting more tourism- and travel-related commercial uses in the vicinity of the Aviation & Space Museum and waterpark. The Area Plan envisions activities and uses related to visitors and the traveling public that could boost tourism and be mutually beneficial to existing attractions. A cluster of these uses in the northeast part of the study area could have a synergistic effect, strengthening McMinnville's and the region's reputation as a destination.

Key Urban Design Elements:

- Connectivity to the Evergreen complex. An important design element of this visitor-oriented area is connectivity to existing Evergreen tourist uses. Providing a safe walking and biking connection parallel to OR 18 will help integrate future development with the Evergreen attractions, which will continue to attract significant amounts of visitors.
- "Gateway" location. In addition, with a prominent location on the east entrance to McMinnville, this development opportunity area should be required to meet the City's Great Neighborhood Principles with high-quality design.

Health Care Area

Vacant parcels surrounding the Willamette Valley Medical Center are a significant opportunity for medical offices, housing for people reliant on medical services, and other uses that benefit from a health care cluster. As envisioned in the Area Plan existing industrial and high-density residential land and uses fronting the highway and in close proximity to the Medical Center could, over time, develop with housing – including assisted living and long-term care facilities - office uses, and services related to the hospital.

Key Urban Design Elements

- Transitions between uses: Health care facilities and surrounding residential areas. Health care facilities are often active around the clock with bright lighting and they generate significant vehicle traffic. They also require a lot of delivery traffic and, in the case of a major medical center, helicopter use. Buffering between uses should be considered, particularly senior housing or market-rate apartments with trees, landscaping and other treatments. Assisted living or nursing care facilities, however, would benefit from close proximity to the hospital.

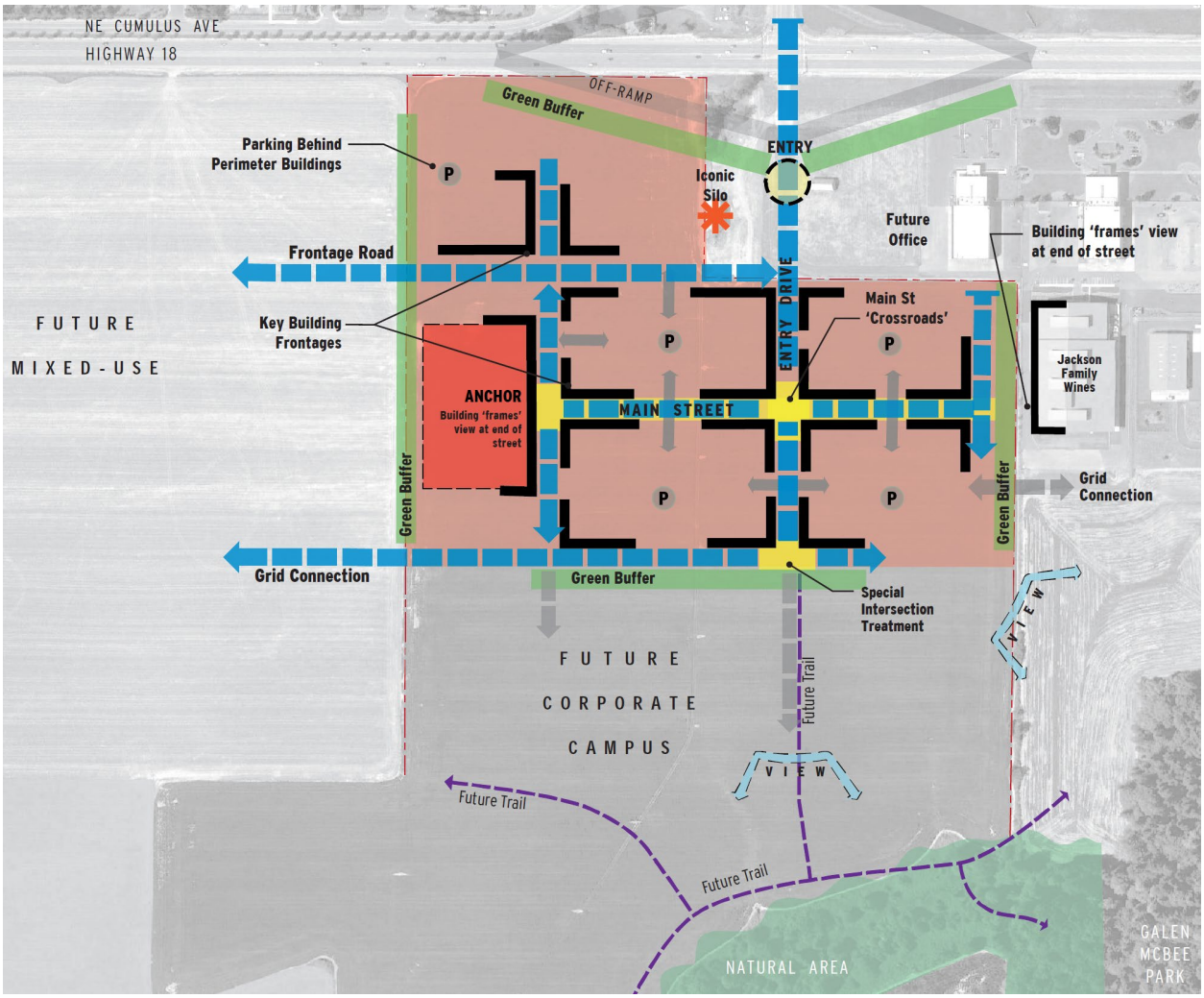
- Transitions between uses: Health care facilities and other commercial uses. The scale and orientation of existing uses, as related to future uses should be considered. For example, while Senior Housing might benefit from a location within walking distance of a retail center, there should be careful site planning to ensure the housing isn't directly adjacent to loading or parking facilities. It may be most feasible to place health-care related housing with an orientation south towards views and the river.
- Walkability between uses. Convenient, safe connections between a variety of uses in this area will be important to current and future users.
- Visual quality of buildings facing OR 18. New development should avoid placing loading docks or creating blank walls visible from passing vehicles.

Retail Center/Innovation Campus

A large area of currently vacant or farmed land stretching from the highway south to the Yamhill River provides a unique opportunity for future development. The design envisioned in the Area Plan is the latest iteration in a process that began with a Property Owners' Workshop. This half-day workshop held at City offices included a presentation of existing site conditions, with confirmation from property owners of natural features, parcel ownership, access, and previous uses. A summary of market conditions was presented, with some suggested adjustments from the owners to reflect their individual research. The workshop concluded with a roundtable discussion of opportunities and constraints, including an exercise where prototypical program 'chips' scaled to the sites, were placed in a variety of potential arrangements to inform initial sketches of concept alternatives.

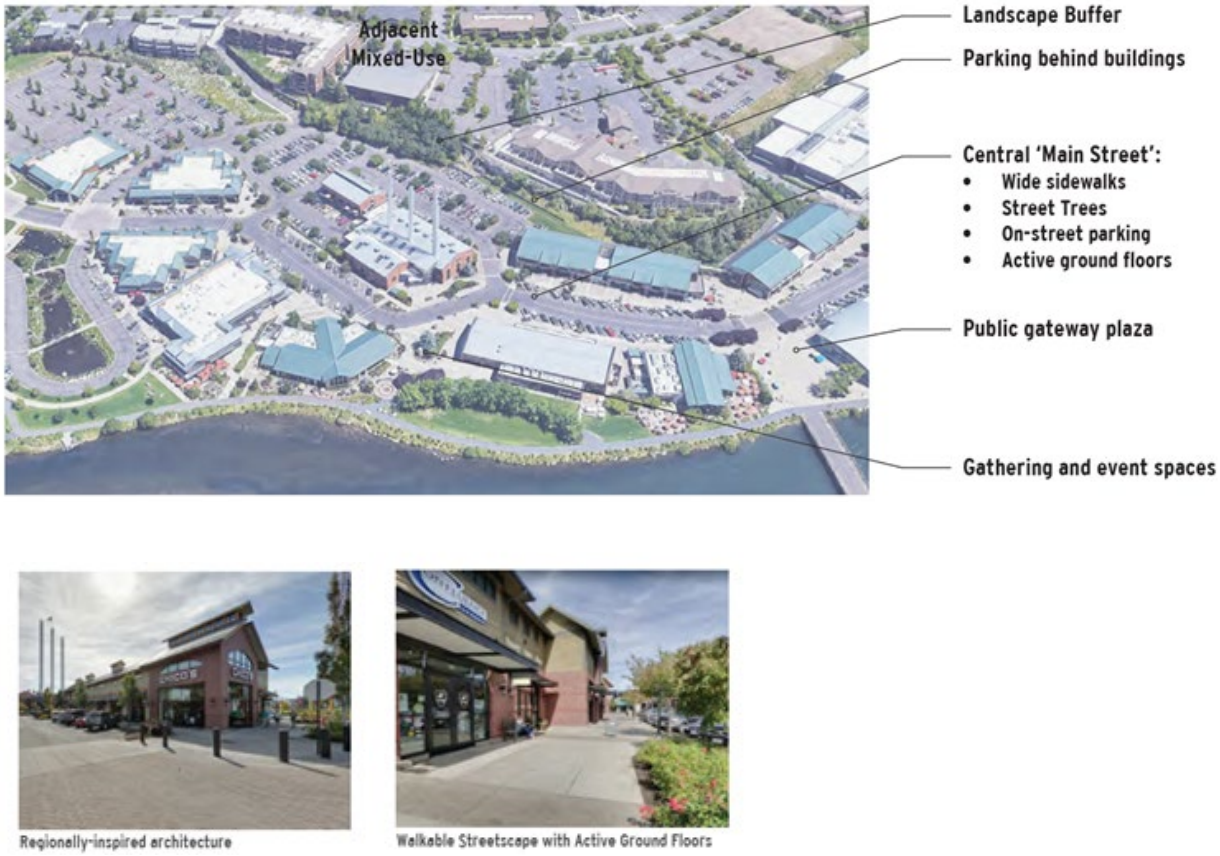
In addition to the focused property owner workshop, the City of McMinnville held a design charrette for the entire corridor study area with the Citizen Advisory Committee on April 8, 2019. Project participants identified a number of key strengths, including high visibility from Oregon OR 18, many large and/or underutilized parcels, proximity to the airport, concentration of tourist amenities and medical uses, strong connections to regional assets, and an abundance of natural features. Specific opportunities the participants identified included: pedestrian bridges over the highway could provide needed connections at key points, the creation of special complete street standards to encourage biking and walking, requiring stormwater treatment and extensive street tree plantings on all study area streets, considering shared parking standards and 'shadow platting' to encourage future infill on surface lots, and opportunities for new residential at the south edge of the case study site and west of the hospital.

Figure 8. *Retail Center Conceptual Design*



The retail market continues to evolve rapidly in response to the challenges of competing with online retail and market consolidation. One tactic that the retail industry has successfully used to attract and retain shoppers to brick and mortar establishments is the creation of mixed-use "town centers" that offer gathering spaces, walkable streets and more dining options than typical strip suburban developments or enclosed shopping centers. Mixed-use town centers offer a greater diversity of uses that typical retail developments, particularly as it pertains to entertainment and some office uses, with the latter providing critical daytime population for retailers.

Figure 9. *Retail Center Precedent: Old Mill District, Bend, Oregon*



A retail center at Cumulus Ave. is a central feature of the Area Plan. The design of this development, the connectivity it provides to the street system south of OR 18, and how well it contributes to McMinnville's Great Neighborhood Principles will be key in the success of this plan. This almost 60-acre parcel is one of the largest regional sites with easy highway access. The site is flat and developable—a unique characteristic for a site of this size, and has a locational advantage being both near to the highway and the McMinnville Municipal Airport. Figure 8 provides an example of how this site could develop, implementing design features desired in the Three Mile Lane Area.

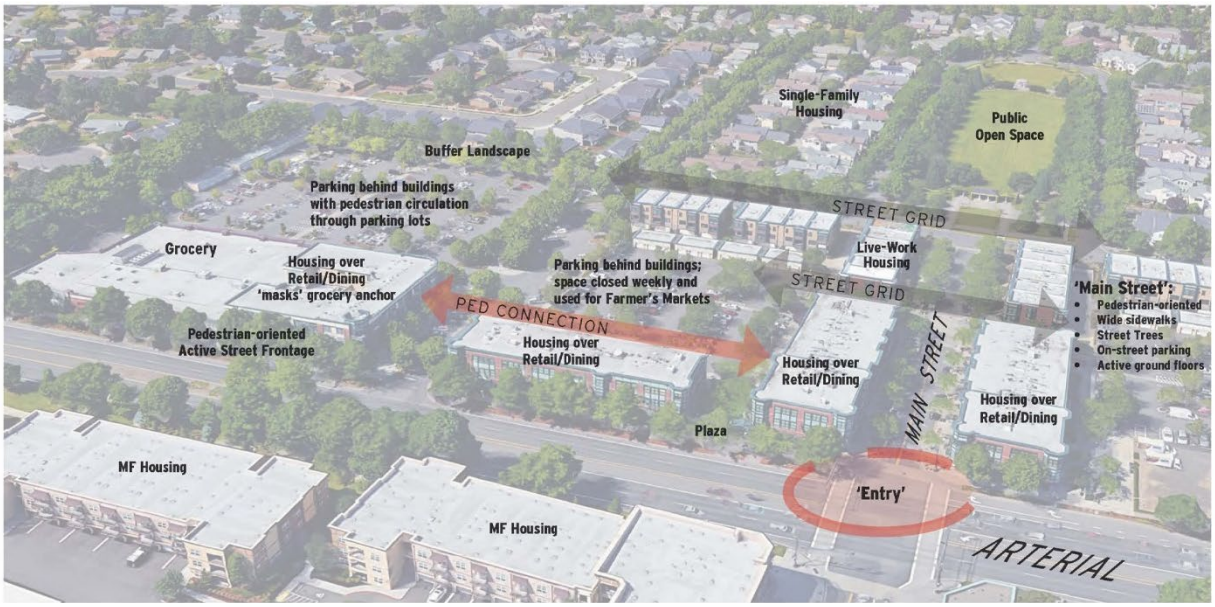
Flexibility is key to attracting a corporate Innovation Campus. The City and/or developer would have to be opportunistic and actively market the property and McMinnville as a corporate destination. Early infrastructure investments and construction of housing and commercial amenities within walking distance of the property would help attract a corporate user, as would a clear but flexible vision and development plan for the property.

Figure 10. *Retail Center Precedent: Northwest Crossing, Bend, Oregon*

The overall goal is for new developments in the Three Mile Lane Area is to echo the features of traditional, older retail districts like downtown McMinnville. Figures 9, 10, and 11 show examples from other Oregon communities, with similar common features that include:

- Human-scale development that is pedestrian friendly.
- Walkable, narrow main streets connecting through the center, with parallel or angled on-street parking in front of retail storefronts.
- Public gathering spaces, bordered by dining and entertainment attractions, featuring play areas and flexible space for programmed public events.
- Shared parking lots, generally located behind buildings, featuring wide pedestrian walkways, EV charging stations, bicycle parking, and transit stops. As well as integrated stormwater treatment and ample landscaping including shade trees.
- Sustainable high-quality architecture, themed in a regionally appropriate way, with buildings placed in prominent locations that contribute to the quality of the pedestrian experience, versus behind large surface parking lots.
- Building edges that create 'frontage' on walkable streets or pedestrian walks, with higher-quality materials, generous windows and pedestrian-scale signage in the first 20-30' of elevation.
- Proximity and connection to a mix of other uses, to encourage walking from residential or office areas to the retail center.
- Generous landscape buffers between the retail center and roadways or parking lots while maintaining maximum visibility for retailers.
- A prominent entry to the site, with signage or a gateway feature.

Figure 11. *Retail Center Precedent: Orenco Station, Hillsboro, Oregon*



Key Urban Design Elements

- **Local identity.** Maintaining the local identity through gateway design elements and development opportunities; establishing formal view protection corridors for Mt Hood, Mt Jefferson, and Amity Hills encouraging mixed uses whenever feasible; and mitigating the visual impact of development on the OR 18 edge.
- **Connectivity.** Transportation and connectivity have been major themes during the planning process. Connectivity—in terms of internal circulation to parks and recreational features and surrounding neighborhoods—is essential, including for pedestrians and cyclists.
- **Parks and open space.** The community has provided input on parks and open space opportunities, identifying the following: prioritizing connections to existing trails and open space (such as connections into Joe Dancer Park), creating a public greenway along South Yamhill River with trail and connections to the study area and McBee Park, and increasing open space opportunities in the study area adjacent to residential uses.

Transportation

Enhancements to the existing local street network supporting the Area Plan are illustrated in Figure 12. The network includes completion of parallel and intersecting streets both north and south of OR 18 and network extension within currently undeveloped lands.

New shared-use paths complement the planned street network that link neighborhoods with planned activity centers and the Galen McBee Airport and Joe Dancer Parks.

Future vehicle traffic conditions for the Three Mile Lane Area, as detailed in Appendix D, were analyzed using three key steps:

1. **Housing and Employment Demographic Data**. Demographic data within the McMinnville UGB was prepared and summarized for year 2041, assuming the no-change "base" land use condition and what conditions would be it the area developed according to the preferred alternative described in this Plan and 2041 Tier 2 land use plan, based housing and employment demographics (McMinnville UGB) for ODOT model inputs.
2. **Transportation Model Network Refinement** – Preferred Alternative. The consultant team coordinated with ODOT to incorporate results from the preferred land use analysis (see Appendix D) to develop assumptions for the Oregon Small Urban Models (OSUM) travel demand model, reflecting the preferred land use option, future OR 18 facility design, and local street system network.
3. **OSUM Model Outcomes and Study Area Intersection Analysis**. ODOT provided future year (2041) model volumes. The analysis for the street design alternative used the travel demand model results to generate traffic forecasts at study area Intersections.[1] The consultant team also did detailed traffic analysis using the model to evaluate future intersection operations in the Three Mile Lane Area.

The results of the analysis confirmed that both signalized intersections in the area –OR 18 and Norton Lane and OR 18 and Cumulus Avenue - will operate at volume-to-capacity ratios below ODOT's established standards under year 2041 Preferred Alternative traffic conditions. However, two of the study area unsignalized intersections fail to meet established mobility targets:

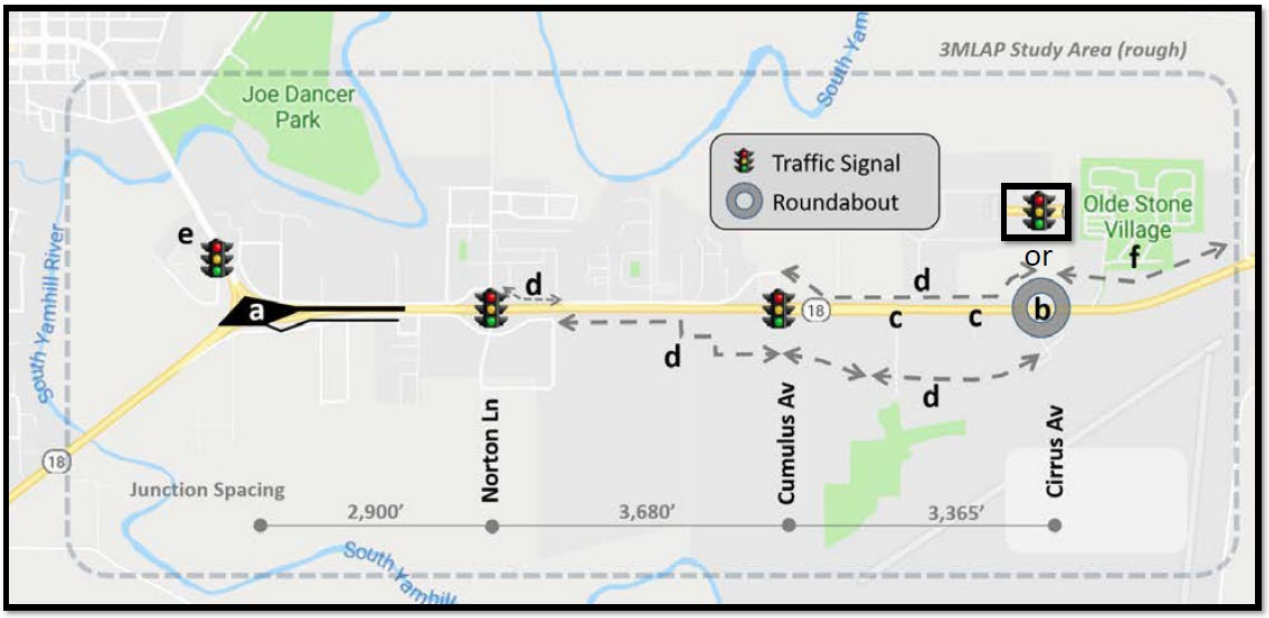
- **Three Mile Lane & First Street –** Three Mile Lane experiences high traffic volumes throughout the day, especially during the PM peak hour. There are limited gaps in the Three Mile Lane traffic flow for motorists turning from First Street. The intersection also doesn't meet mobility targets based on 2018 traffic conditions.

- **Three Mile Lane & Cumulus Avenue** – The westbound and eastbound approaches are controlled with stop signs. There is no separate left-turn lane on the north leg of Three Mile Lane. Future traffic on Three Mile Lane and Cumulus Avenue is sufficiently high that eastbound and westbound motorists will find insufficient gaps to turn and travel north or south through the intersection.

[1] This work was conducted in accordance with the Methodology Memorandum, December 10, 2018. See Appendix D.

Preferred Facility Design

Figure 12. *Preferred Facility Design Concept* *(Replaced to revise Cirrus Avenue Improvement)*



a) Three Mile Lane interchange - reconstructed for full directional access and crossing, with new connector to Stratus Avenue - see Figure 13).

~~b)~~ Cirrus Avenue – appropriate traffic control, which could include a traffic signal, roundabout, or other measures approved by ODOT. ~~New roundabout on OR 18, with McMinnville gateway features.~~

c) Removal of at-grade street and driveway accesses to OR 18 in the section between Cumulus Avenue and the eastern edge of the study area, including Loop Road and Cruickshank Road (Cruickshank Road is not shown in Figure 12, as Cruickshank Road is external to the Three Mile Lane Study area).

d) New east-west frontage streets north and south of OR 18, linking Cirrus Avenue, Cumulus Avenue and Norton Lane. These and other local street connectors are depicted in Figures 16 and 17.

e) New traffic signal (or roundabout) at Three-Mile Lane and Cumulus Avenue.

f) Loop Road - disconnect from OR 18 and realign to new Cirrus Avenue connector and roundabout.

Figure 13 illustrates the reconstructed interchange of OR 18 at Three Mile Lane. The interchange modifications allow full vehicular movement to and from the highway in all directions, and a bi-directional connection between the southern half of the Study Area and McMinnville's city center via Stratus Avenue. These new connections will likely carry significant local traffic demand that would otherwise travel on OR 18 between the study area and McMinnville's city center. The Stratus Avenue connection also provides direct connectivity for pedestrian and cyclists traveling between

the southern half of the Study Area and McMinnville's city center. Separated, two-way cycle tracks on both Cumulus Avenue and Stratus Avenue will improve rider comfort and significantly reduce level of traffic stress on these routes.u

Figure 13. *OR 18 / Three Mile Lane Interchange Preferred Facility Design*

This plan includes interchange layout and traffic control concepts that will require further study and engineering analysis, including:

A. Re-align Cumulus Avenue (and Nehemiah Lane) intersection approximately 200 feet north with Three Mile Lane to provide additional spacing from future OR 18 interchange ramps.

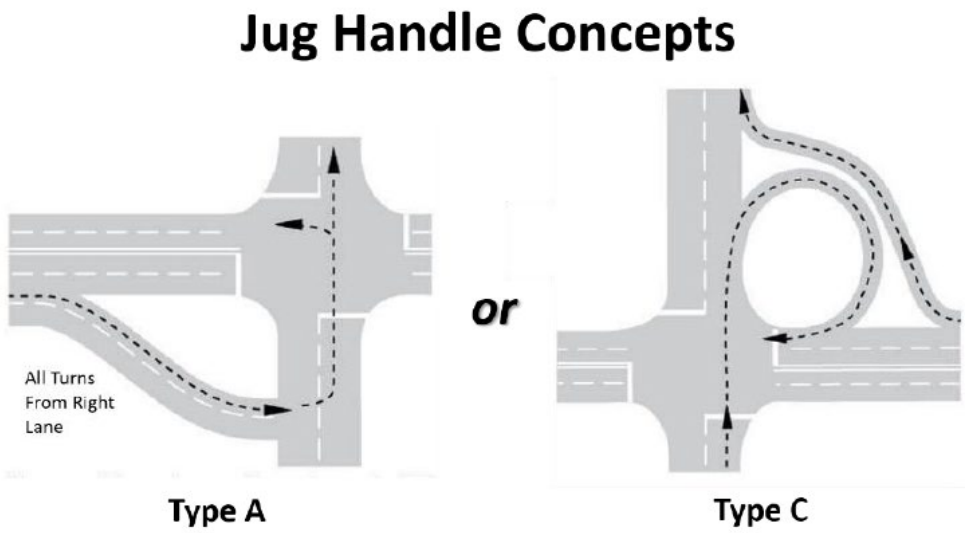
B. New traffic control (signal or roundabout) if supported by MUTCD signal warrant analysis.

C. Spacing sufficiency on Three Mile Lane between the new traffic signal and OR 18 westbound off-ramp.

D. Re-alignment of Lawson Lane and its new connection to Martin Lane.

E. The Urban Growth Boundary (UGB) is approximately coterminous with Stratus Avenue. The Stratus Avenue extension to the new interchange (and Lawson Lane re-alignment) will likely not require a UGB amendment (see ORS 215.283).

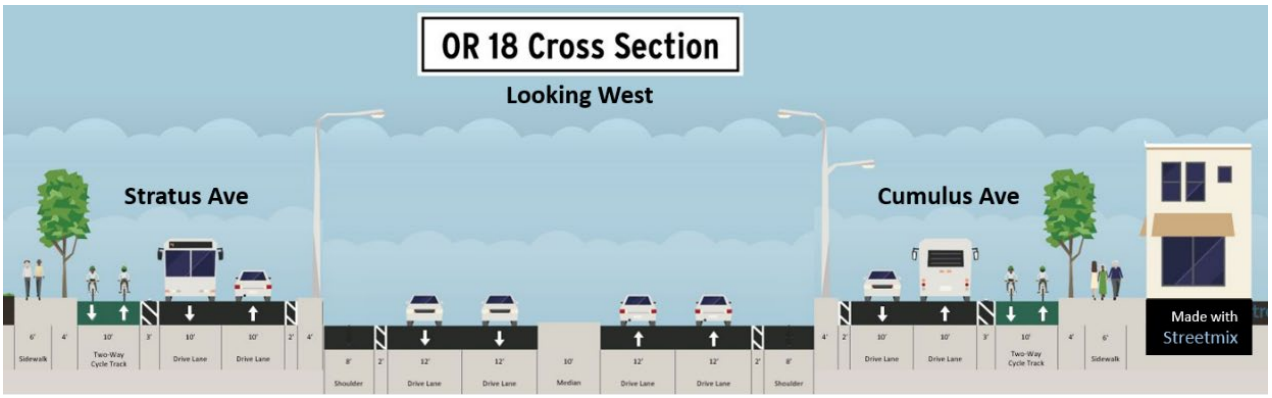
Figure 14. *Cumulus Avenue Jug Handle Concept Options*



Source: New Jersey Department of Transportation

Note: The draft Preferred Facility Design was developed in coordination with the CAC prior to the development and evaluation of future traffic volumes and operations. The later traffic operations analysis indicates that the traffic signal at OR 18/Cumulus Avenue will accommodate year 2041 traffic operations under both the Base and Preferred Alternative scenarios, without the need for additional jug handles. Jug handles may be needed beyond the 20-year planning horizon.

Figure 15. *Proposed OR 18 Cross Section*



Multimodal Plan

Complete Streets

Local connectivity is accomplished through special "complete street" standards to encourage biking and walking and that require stormwater treatment and extensive street tree plantings on all area streets. Complete street cross-sections for Major Collector and Local Residential streets are included below.

Figure 16. *Major Collector Street Cross Section*

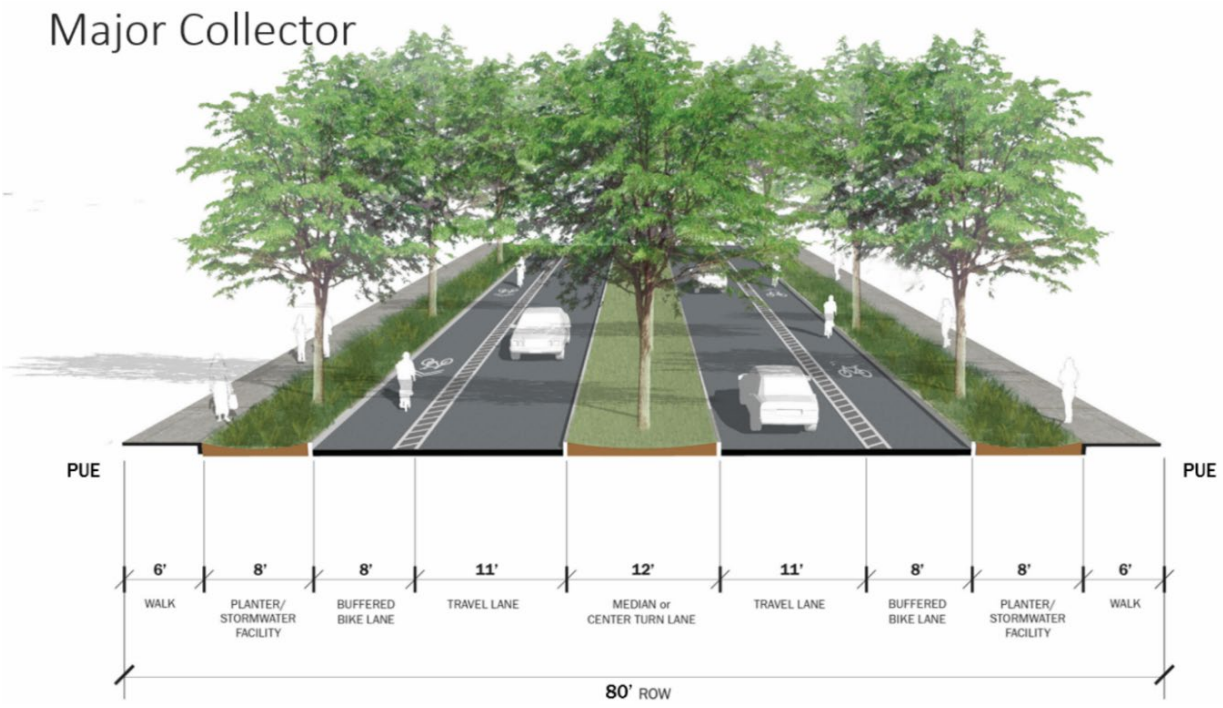


Figure 17. *Local Residential Street Cross Section*

Pedestrian Facilities

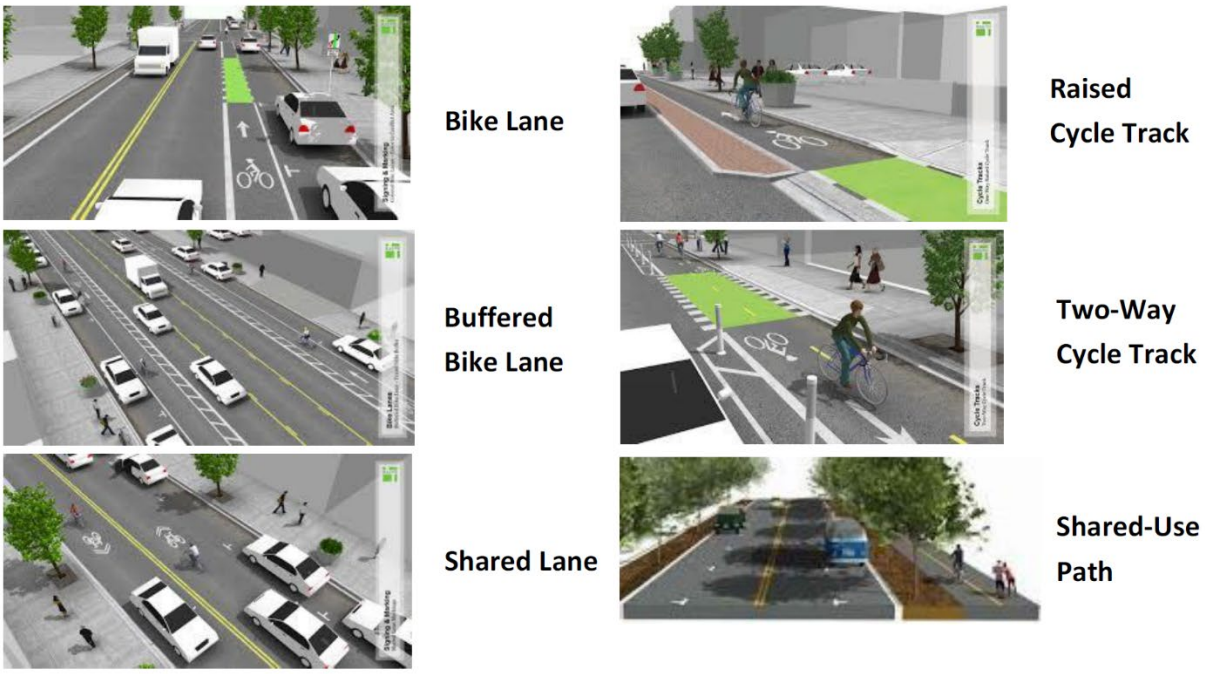
The combination of pedestrian facility improvements along existing and planned collector streets, and planned pathway improvements in the study area will significantly improve overall pedestrian access, mobility, and comfort for all users. A detailed evaluation of pedestrian facilities in the plan is included in Appendix D.

Bicycle Facilities

The Preferred Alternative includes recommended bicycle system improvements on existing streets and new connectors to help form a more complete bicycle network within the 3MLAP study area. Bicycle facilities provide improved mobility for users riding to the city center and seeking active transportation options that support a healthy lifestyle. Bicycle facilities considered in the study include bike lanes, buffered bike lanes, bike boulevards (shared lane), cycle tracks and shared-use paths as summarized in Figure 18.

The combination of bicycle facility improvements along existing and planned collector streets, and planned pathway improvements in the study area will significantly improve bicycle access, mobility and comfort for users of all ages and confidence levels. A detailed evaluation of bicycle facilities is included in Appendix D.

Figure 18. *Types of Bicycle Facilities*

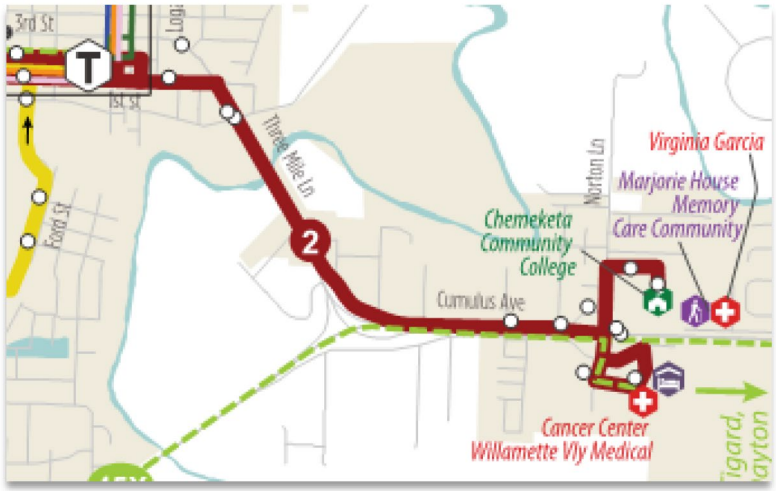


Source: NACTO

Transit Connections

The extension of frontage roads east along the north and south sides of OR 18 identified in the Area Plan (see Figure 12) will provide opportunity for YCTA to extend Route 2 service within the study area.

Figure 19. *YCTA Route 2 in the Three Mile Lane Area*



Policies

The following policies shall ~~are intended to~~ guide development and future planning decisions in the Three Mile Lane area. These policies implement the Three Mile Lane Area Plan goals and describe how Great Neighborhood Principles are expected to be expressed in the future growth and development of the Three Mile Lane Area.

1. *Require future development to be consistent with the design elements of the Three Mile Lane Area Plan.*
2. *Public improvements and private development shall strive to protect tree groves and mature individual trees.*
3. *Riparian corridors and adjacent native landscape shall be protected.*
4. *The built environment will be designed to provide and protect views to rolling hills and volcanoes and to enhance visual and physical access to the North Yamhill River. New streets and open spaces will be oriented to capture views.*
5. *Enhancing connections to existing trails and open space, such as connections into Joe Dancer Park and McBee Park, and creating a public greenway along South Yamhill River with trails and connections to the Three Mile Lane Area is a priority.*
6. *New gathering spaces will be designed to incorporate natural areas and views.*
7. *Require native landscape plantings with seasonal variation and tree plantings that include shade streets with mature tree canopy.*
8. *A network of sidewalks and trails will connect people to key locations within the Three Mile Lane Area.*
9. *The Three Mile Lane Area will have safe bicycle routes for residents and touring cyclists.*

10. *Proposed new streets will connect to the existing local street grid, consistent with the conceptual designs in the Three Mile Lane Area Plan and in compliance with Transportation System Plan standards.*

11. *New commercial developments should be designed to be at a walkable, human scale and for ease of use by all ages and abilities.*

12. *New commercial, office, mixed-use, and multi-family developments should be designed to reflect the micro-climate and enhance outdoor life through the incorporation of features such as porches, balconies, courtyards, plazas, etc.*

13. *New commercial, office, mixed-use, and industrial campus developments should promote inclusion and interaction within the right-of-way.*

14. *Encourage mixed-use development where feasible.*

15. *Proposed site landscape for new development should strive to reflect patterns of wine industry—eg, rows of vines, southern orientation, shelter belts of trees – and consider functional site planning of vineyard and farm complexes as conceptual models.*

16. *New development should consider adjacency to agricultural fields and respect this heritage through careful transitions.*

17. *Architectural building design that includes simple roof forms (industrial and agricultural) is encouraged in the Three Mile Lane Area.*

18. *Encourage a diversity of future housing forms, types, and design that respect the current character of the area .*

19. *Ensure that new commercial and industrial campus development creates a welcoming and visible interface with Three Mile Lane.*

20. *Encourage site design and architecture that visibly convey the historic or current industry on the site (e.g., aviation, wine-making).*

21. *New commercial, mixed-use, office, and industrial campus development should consider using local materials for cladding and building structure (timber, corrugated steel cladding, red brick), and incorporating vibrant color.*

IMPLEMENTATION PLAN

Overview

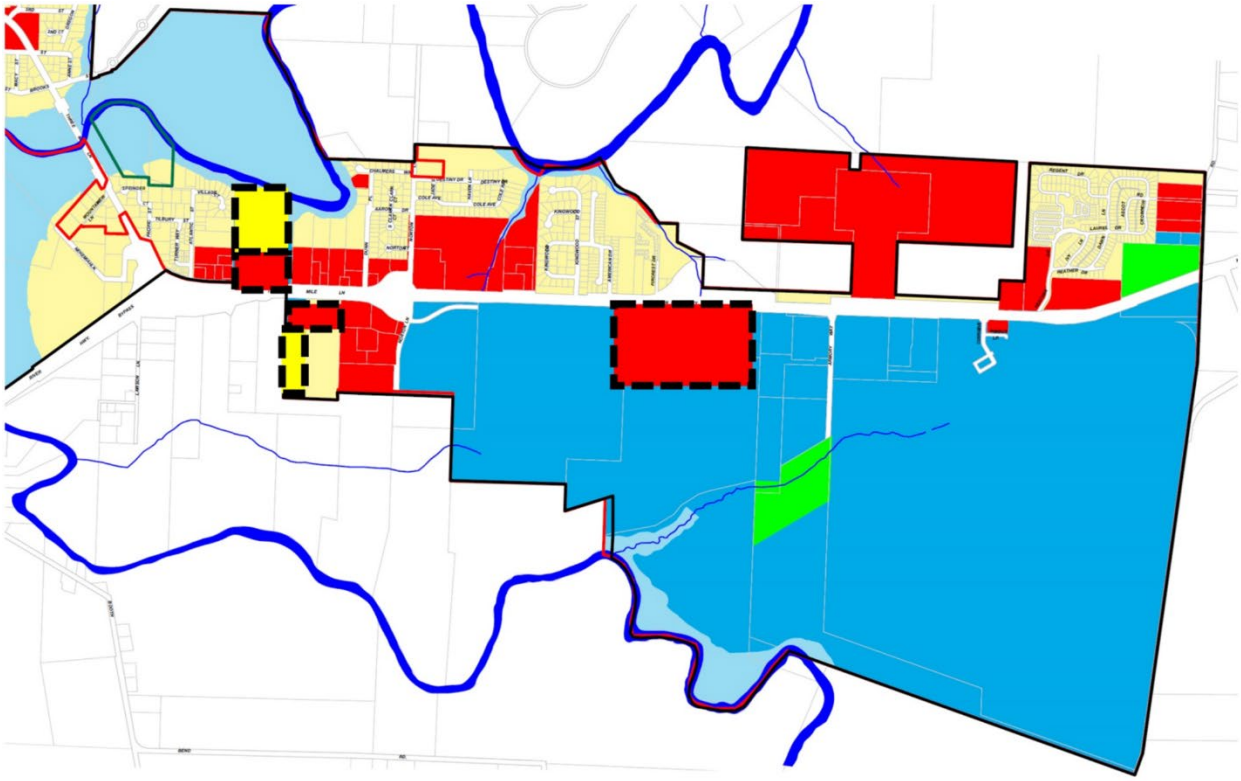
Through the development and implementation of the Three Mile Lane Area Plan, McMinnville has the opportunity to establish land use and transportation policy for the area and set standards and guidelines that will help the community realize the vision for this area. The Area Plan will be adopted as an element of the City's Comprehensive Plan to guide future land use, transportation improvements, and development decisions. This plan will be implemented through the City's Master Plans, Zoning Ordinance, Municipal Code, and the Three Mile Lane Planned Development Overlay. This section details the recommended modifications to the City's Comprehensive Plan and the Planned Development Overlay Ordinance.

Comprehensive Plan Amendments

Comprehensive Plan Map

In addition to the Three Mile Lane Area Plan being adopted as an element of the Comprehensive Plan, a map amendment will be a necessary implementation action. As described in the previous section, the Area Plan envisions land uses that are different than what is currently planned for on the City's Comprehensive Plan map. To allow for the area to develop consistent with the vision for the Three Mile Lane Area, the City will need to change the Comprehensive Plan Land Use Map in the areas indicated by the dashed black line in Figure 20.

Figure 20. *Comprehensive Plan Map Amendments*



The predominant change is from an Industrial designation to a Commercial designation for approximately 40 – 60 acres south of OR 18. The other change south of the highway, west of Norton Lane, is from Industrial to Commercial and Residential. The Industrial Comprehensive Plan amendment on the northern side shown in Figure 20, entails proposed Commercial and Residential Comprehensive Plan redesignations

Policies

Policies in the Three Mile Lane Area Plan are intended to supplement policies in the City's existing Comprehensive Plan and support implementation of the Area Plan. The policies were developed to implement the Three Mile Lane Area Plan goals and describe how Great Neighborhood Principals are expected to be expressed in the future growth and development of the Three Mile Lane Area.

Transportation System Plan

To support the changes represented in the preferred land use option and the facility design for OR 18 there will need to be key improvements to the transportation system. The City of McMinnville's 2010 Transportation System Plan will need to be updated to capture these improvements. Complete Street design will require changes to City street standards in the TSP as well as the Zoning Ordinance. Modifications are noted in Table 1 and include an increase in sidewalk widths and planter strip widths along residential streets. To enhance cyclists' comfort, the revised standards require buffered bike lanes (or cycle tracks) on collector streets and sharrow markings for shared lanes on local residential streets.

Table 1: Complete Street Standards

	Major Collector Existing Standards	Notes	Local Residential Existing Standards	Notes
Right-of-Way	74'	Increase to 80'	50'	Increase to 58'
Speed	25–30 mph		15–25 mph	
Maximum Average Daily Traffic (ADT)	16,000		1,200	
Adjacent Land Use Intensity	Medium		Low	
Sidewalks	5' residential 10–12' commercial	6'	5'	Increase to 6'
Planter Strips	6' residential N/A commercial	8'	5'	Increase to 6'
Curb-to-Curb Street Width	44'	Suggest 50'	28'	
On-Street Parking Two Sides	N/A		yes	Switch to one side parking if travelway too narrow... see below
Bike Facility	2 lanes (5')	Change to 8' buffered bike lanes (or cycle tracks)	Shared Lane	OK, with sharrow markings
Median / Center Turn Lane	12'		None	
Travel Lane Width	2 lanes (11')		See street width	

Project phasing, costs, and design standards related to implementing the preferred OR 18 improvements will also need to be reflected in the updated TSP, consistent with what is shown in Table 2.

Table 2: OR 18 Improvements – Planning-Level Cost Estimates and Phasing

Phase	Description	Notes	Low Cost 2021 (millions)	High Cost 2021 (millions)
1. Independent State and/or City Projects				
	New Multi-Lane Roundabout at OR 18 and Cirrus Avenue		$8.0	$10.0
	Construct Bicycle Lanes and Sidewalks on NE Cumulus Avenue from Cumulus Avenue to Evergreen Air and Space Museum Entrance		$0.4	$0.6
	Extend Cumulus Avenue East from Norton Lane and Modify Intersection Traffic Control at Existing Norton Lane/Cumulus Avenue Intersection	[1]	To be determined	
2. City/State Projects Reliant on Completion of New OR 18 / Cirrus Roundabout				
	Disconnect Loop Road from OR 18 and Re-align to Cirrus Avenue		$2.5	$3.0
	New OR 18 Frontage Roads Between Cumulus Avenue and Cirrus Avenue (both north and south of OR 18)	[2]	To be determined	
3. City/State Projects Commensurate with/Reliant on New Extension of Cumulus Avenue South of OR 18				
	Construct Cumulus Avenue south of OR 18	[2]	To be determined	
	Revise Traffic Signal at OR 18/Cumulus Avenue Intersection		$1.1	$1.2
	Construct Bicycle Lanes and Sidewalks on Cumulus Avenue from OR 18 to NE Cumulus Avenue		$0.5	$0.7
4. State and City Projects Commensurate with or Reliant on New OR 18/Three Mile Lane Interchange				
	Reconstruct OR 18/Three Mile Lane Interchange	[3]	$60.0	$90.0
	Re-Fit Cumulus Avenue (north side) with 2-Way Cycle Track, Buffer Strip and Wider Sidewalk: Three Mile Lane to Norton Lane		$3.1	$3.4
	Re-Fit Stratus Avenue (south side) with 2-Way Cycle Track, Buffer Strip and Wider Sidewalk: Martin Lane to Norton Lane		$1.6	$1.8
	Re-align Cumulus Avenue and Nehemiah Lane at Three Mile Lane		$2.4	$2.6
	New Traffic Signal on Three-Mile Lane at Cumulus Avenue		$0.5	$0.6
	Re-align Lawson Lane		$1.5	$1.7
		Total	**$81.6**	**$115.6**

Notes:

[1] Subject to coordination and approval between City of McMinnville and Chemeketa Community College.

[2] Subject to private development access needs.

[3] Including general cost items of demolition, pavement, curb, sidewalk, signing and striping, drainage and landscaping, and new traffic signal or roundabout at junction of OR 18 eastbound ramps and Stratus Avenue.

These cost estimates are for planning purposes only and are subject to refinement during concept development and preliminary engineering. Neither ODOT, City of McMinnville or private development roles and responsibilities in funding these projects have been identified.

The cost estimates for the recommended projects in Table 2 are for planning purposes only and are subject to refinement during concept development and preliminary engineering. Identifying ODOT, City of McMinnville or private development roles and responsibilities in funding these projects have not been identified. Redesigning and retrofitting streets, highways and land use with new, multimodal transportation infrastructure sometimes requires taking exception to design standards so that new projects fit within existing rights-of-way, natural and built environmental constraints. As the concepts identified in the Plan are taken forward into preliminary engineering and final design, there will likely be the need to examine exceptions to roadway and junction design standards. Table 3 summarizes those projects identified in the Area Plan that may require design exceptions.

Table 3: OR 18 Improvements – Design Phase Issues

Recommended Plan Project	Constraints	Design Standard Issues or Possible Exceptions
Reconstruct OR 18/ Three Mile Lane Interchange	Proximity of Yamhill River Bridge, Cumulus Avenue/Nehemiah Lane intersection, OR 18 eastbound off-ramp junction, and UGB boundary (current alignment of Stratus Avenue)	Junction spacing and traffic control at: • Three Mile Lane • OR 18 Westbound Off-Ramp at Three Mile Lane • OR 18 Eastbound Off-ramp at Three Mile Lane/ Stratus Avenue
New Roundabout at OR 18 and Cirrus Avenue	Standard two-lane roundabout likely requires additional rights-of-way. OR 18 posted and design speeds entering McMinnville UGB.	Roundabout geometric design treatments to: • Reduce approaching vehicle speeds and accommodate multi-axle trucks on OR 18 • Accommodate bicycle and pedestrian traffic
Re-purposing Cumulus and Stratus Avenues with two-way cycle tracks	Limited street rights-of-way and need to accommodate future bus stops amenities.	Two-way cycle tracks are not currently incorporated in the City's design standards. Reference ODOT Blueprint for Urban Design, AASHTO and NACTO for design guidance.

The designation of OR 18 as a freight route on the State Highway Freight System also has implications for roadway design and mobility standards. Oregon statute states that the Oregon Transportation Commission may not permanently reduce the "vehicle-carrying capacity" of an identified freight route unless safety or access considerations require the reduction, or a local government requests an exemption and the Commission determines it is in the best interest of the state and freight movement is not unreasonably impeded.[2] The design of proposed improvements on OR 18 will need to be closely coordinated with ODOT, including the Mobility Services Team

[2] Oregon Revised Statute 366.215, https://www.oregonlegislature.gov/bills_laws/ors/ors366.html . In the context of this statute, "vehicle-carrying capacity" refers to the vertical and horizontal clearance of a highway section that can physically carry motor vehicles.

whose responsibility is to invite statewide transportation stakeholders to participate in required Stakeholder Forums considering improvements that may impact vehicle-carrying capacity on a freight route.[3]

Zoning Ordinance Amendments

This planning effort included a land use evaluation (see Appendix D) which considered the adequacy of existing policies and development regulations in implementing the Preferred Alternative. Specifically, the analysis considered the design features desired for future development in the Three Mile Lane Area and determined whether existing zoning and development ordinances would enable or require these features. The results of this analysis and recommended modifications to development requirements are summarized below. Model text amendments to update City ordinances are found in Appendix E.

Regulatory Framework

Land use and development in the Three Mile Lane area is regulated by the City's Zoning Ordinance and the Three Mile Lane Planned Development Overlay. The Zoning Ordinance governs uses, density, and dimensional requirements for zoning districts in the area, as well as site design and permitting requirements. The Planned Development Overlay contains requirements specific to the Three Mile Lane area that either modify or add to underlying zoning standards.

No changes to existing zoning designations are proposed with the Area Plan. Changes to the underlying Comprehensive Plan are recommended (see Figure 20), and will allow for property owners to initiate rezoning in these key areas over time. Also, no changes related to the type of development subject to a land use review process within the Three Mile Lane area are proposed. The following requirements will continue to apply:

- **Development Approval.** The review and approval process for land use applications is through Three Mile Lane Design Review, Director's Review with Notification.
- **Zone changes.** Zone changes within the Three Mile Lane Planned Development Overlay area are evaluated using Planned Development Overlay standards and procedures and approved by Planning Commission.
- **Industrial Campus/M-L Zoning.** Proposed Industrial uses in the M-L zone must be approved by the Planning Commission, after evaluating impacts such as noise, traffic generation, air and water pollution, and appearance.
- **Commercial Zoning.** New commercial structures larger than 25,000 square feet of gross floor area require Director approval through Large Format Commercial Design Review.
- **Signage.** Signage in areas designated commercial and industrial require approval by the Three Mile Lane Design Review Committee, after evaluating compatibility and design elements such as color, material, size, form, and relationship to site and building design.

[3] For more information about the process and ORS 366.215 requirements see https://www.oregon.gov/ODOT/Planning/Documents/ORS_366.215_Implementation_Guidance.pdf .

Future development proposals ~~can~~ shall address the special urban design elements described in this Area Plan - specifically in the mixed-use neighborhoods, ~~and~~ retail center, and innovation campus areas - through the planned development approval process (Chapter 17.51 Planned Development Overlay).[4] This shall be a requirement of future development on those sites to ensure compliance with this Plan's policies and guiding principles.

To ensure that future development in this area reflects the City's vision for the Three Mile Lane area, after adopting this Plan, the City should work towards implementing the guiding principles and policies in this Plan in the regulatory framework of the City's comprehensive plan and zoning ordinance. .

Table 4 lists recommended changes to development requirements that will strengthen the City's current Zoning Ordinance provisions and that, when implemented, will better reflect the future development outcomes envisioned for the Three Mile Lane Area. The table lists the policies describing desired features and outcomes and where modifications to existing requirements or specific actions are needed. Some proposed recommendation items from the earlier analysis have not had a robust community conversation or require additional study or analysis. These items are noted as recommended future action items for the City to consider.

Within the recommendations in the Overlay Amendment column in Table 4 there is a further distinction between requirements that should be applicable to all development in the Three Mile Lane Area and requirements that are more appropriate for larger, planned developments.

After adopting this Plan, the City should work towards implementing the guiding principles and policies in this Plan in the regulatory framework of the City's comprehensive plan and zoning ordinance.

[4] Today, development proposals within the Three Mile Lane Planned Development Overlay do not have to go through a planned development process and the City cannot require a master plan. Master plans are defined in the Zoning Ordinance as the "maps, illustrations and supported text associated with a planned development which conveys the approved uses for the site along with any associated conditions, phasing schedules and other agreements."

Table 4: Implementation Recommendations

Policy	Overlay Amendment	Recommended Future Action
1. Require future development to be consistent with the design elements of the Three Mile Lane Area Plan.	Include specific development standards (see amendments in this table) in the Three Mile Lane Planned Development Overlay to implement the Three Mile Lane Area Plan. Note that the review and approval process for land use applications is through Three Mile Lane Design Review, Director's Review with Notification. Require Mixed-use, Commercial, or Industrial development proposals over [10] acres to be subject to Planned Development Overlay (Chapter 17.51) and Planning Commission approval. In the Innovation Campus allow office uses that support products and services that are manufactured or developed on site or that serve as corporate offices for products that are manufactured elsewhere.	
2. Public improvements and private development shall strive to protect tree groves and mature individual trees.		Identify tree groves and tree types to be protected and designate as significant or historic trees.
3. Riparian corridors and adjacent native landscapes shall be protected.	Require mapping and protection of stream corridors and re-vegetation with native plantings.	
4. The built environment will be designed to provide and protect views to rolling hills and volcanoes and to enhance visual and physical access to the North Yamhill River. New streets and open spaces will be oriented to capture views.	Require viewshed analysis as part of Design Review.	
5. Enhancing connections to existing trails and open space, such as connections into Joe Dancer Park and McBee Park, and creating a public greenway along South Yamhill River with trails and connections to the Three Mile Lane Area is a priority.	Require connection to proposed trail, trail right-of-way dedication, and trail construction as part of Design Review/development approval.	
6. New gathering spaces will be designed to incorporate natural areas and views.	When proposed as part of a Planned Development master plan, require gathering spaces be designed to incorporate natural areas and views as a condition of approval.	
7. Require native landscape plantings with seasonal variation and tree plantings that include shade streets with mature tree canopy.	Require native landscaping and plantings of all development through Design Review.	Develop and define approved planting list and approved tree list.

Policy	Overlay Amendment	Recommended Future Action
8. A network of sidewalks and trails will connect people to key locations within the Three Mile Lane Area.	Apply pedestrian walkway and connectivity standards to all non-residential development. Note: Pedestrian walkway standards, currently are applied to Large Format Retail; site design requires connections between buildings and from building entrances to streets (§17.56.050.C.2).	
9. The Three Mile Lane Area will have safe bicycle routes for residents and touring cyclists.	Require transportation improvements consistent with the Area Plan through Design Review.	
10. Proposed new streets will connect to the existing local street grid, consistent with the conceptual designs in the Three Mile Lane Area Plan and in compliance with Transportation System Plan standards.	Require transportation improvements consistent with the Area Plan through Design Review.	
11. New commercial developments should be designed to be at a walkable, human scale and for ease of use by all ages and abilities.	Requirements for commercial building size and massing. Standards for parking maximums for all uses. Parking lot location requirements for commercial uses.	Additional guidelines or standards related to façade treatments. 17.56.050 Development Standards
12. New commercial, office, mixed-use, and multi-family developments should be designed to reflect the micro-climate and enhance outdoor life through the incorporation of features such as porches, balconies, courtyards, plazas, etc.	Require as part of Design Review: • Standards for non-residential buildings to include minimum pedestrian shelter coverages along ground floor elevations/street frontages and main entrances. • Residential design features to include clear and objective building design standards/ architectural elements.	Additional guidelines or standards related to façade treatments.
13. New commercial, office, mixed-use, and industrial campus developments should promote inclusion and interaction within the right-of-way.	Require as part of Design Review: • New requirements for building orientation (set-to, building orientation); • Additional guidelines or standards related to façade treatments, including transparency. • Provision of on-street parking for ground-floor commercial uses (new requirements allowing on-street spaces to be counted toward parking minimums, new cross-section standards for streets with ground-floor retail).	
14. Encourage mixed-use development where feasible.		Consider additional guidelines or requirements for the Mixed Use area.

Policy	Overlay Amendment	Recommended Future Action
15. Proposed site landscaping for new development should strive to reflect patterns of wine industry—eg, rows of vines, southern orientation, shelter belts of trees – and consider functional site planning of vineyard and farm complexes as conceptual models.	Require landscaping proposed as part of a Planned Development master plan to demonstrate how it reflects existing patterns.	
16. New development should consider adjacency to agricultural fields and respect this heritage through careful transitions.	Buffer/perimeter requirements for new non-residential development adjacent to a dissimilar use.	Determine if specific buffering requirements are needed for proposed development abutting land zoned exclusive farm use.
17. Architectural building design that includes simple roof forms (industrial and agricultural) is encouraged in the Three Mile Lane Area.		Develop design guidelines or architectural standards.
18. Encourage a diversity of future housing forms, types, and design that respect the current character of the area.	Buffer/perimeter requirements for new non-residential development adjacent to a dissimilar use.	Evaluate Zoning Ordinance to ensure there are clear and objective design standards for new residential development.
19. Ensure that new commercial and industrial campus development creates a welcoming and visible interface with Three Mile Lane.	Requirements for landscape buffering fronting Three Mile Lane. Requirements for non-residential development related to building facades, including addressing blank walls and requiring articulation and materials or color variation.	Develop design guidelines to encourage a more cohesive visual character along the corridor.
20. Encourage site design and architecture that visibly convey the historic or current industry on the site (e.g., aviation, wine-making).		Develop design guidelines or architectural standards.
21. New commercial, mixed-use, office, and industrial campus development should consider using local materials for cladding and building structure (timber, corrugated steel cladding, red brick), and incorporating vibrant color.	Requirements for non-residential development related to building facades, including addressing blank walls and requiring articulation and materials or color variation.	Develop additional design guidelines or standards related to façade treatments; define acceptable color palate.

NEXT STEPS

Incorporate Three Mile Lane Area Plan Findings

Both the City of McMinnville and Oregon Department of Transportation (ODOT) will consider actions to implement key findings of the Three Mile Lane Area Plan as part of their transportation and land use (city) plans as follows:

Joint City/ODOT Project Development

1. **OR 18 / Cirrus Avenue Junction**
   Future project development, development driven or otherwise, will likely require the City, State, and developer to coordinate project concept development, investigate rights-of-way requirements, and begin preliminary design of new junction traffic control (roundabout or traffic signal) at the intersection of OR 18 and Cirrus Avenue. Project includes closing Laurel Lane, Loop Road, and the RV sales private driveway and consolidating these accesses to the OR 18/Cirrus Avenue intersection via a new frontage road constructed along the north side of OR 18. Project development will require specific coordination with the State Traffic Engineer and the Mobility Advisory Committee. An intergovernmental agreement and memorandum of agreement may be used to formalize this coordinated effort.

   ***Project Purpose and Need*:** Resolve highway safety problem at OR 18/Loop Road (see Appendix A) and revise local access to Cirrus Avenue (city/public street) and removal of private driveways in accordance with Oregon Highway Plan Access Management and Spacing standards, adopted as Appendix to the McMinnville Transportation Systems Plan (2010).

City of McMinnville

1. Update the Comprehensive Plan Land Use Map to reflect proposed land uses in the Three Mile Lane Area Plan.
2. Adopt an Ordinance amending Ordinance 4131 (Three Mile Lane Planned Development Overlay) and Ordinance 5472 (Three Mile Lane Amendment) by adding new sections that reflect the implementation recommendations of the Three Mile Lane Area Plan.
3. Update the 2010 Transportation System Plan to adopt city and state highway improvements projects identified in the Area Plan.
4. Revise and update the Transportation Systems Development Charge to incorporate transportation capacity improvements that serve new development needs as identified in the Area Plan.
5. Review and administer site plan proposals, zone change and/or comprehensive plan change applications within the Area Plan area seeking landowner and/or developer cooperation in reserving rights-of-way for the OR 18 / Cumulus Avenue interchange. *Note that this is not an identified capacity improvement requirement within the current (2021-2041) 20-year planning horizon.*
6. Amend the UGB agreement with Yamhill County.

7. Consider needed refinements to other City Capital Improvement Plans and amend and adopt City Master Plan updates as needed to support future growth in the Three Mile Lane Area.

ODOT

1. Consider the adoption of the 3MLAP as a Facility Plan.
2. Coordinate with the City of McMinnville to identify funding (City, State, and developer), and carry out design and re-construction of the OR 18/Three Mile Lane interchange as identified in the 3MLAP.

Planning Guidance - Post 20-Year Planning Horizon

The City of McMinnville and ODOT will continue to coordinate and monitor land development proposals in the 3MLAP area and evaluate OR 18 traffic trends to determine when the full interchange, as identified in the 1997 OR 18 Corridor Refinement Plan and McMinnville's current TSP, or additional interim traffic capacity improvements are needed at the junction of OR 18 and Cumulus Avenue.

The 1997 OR 18 Corridor Refinement Plan indicates closure of the Norton Lane crossing of OR 18 with no additional OR 18 crossings. Minimum pedestrian highway crossing spacing guidelines outlined in Oregon's Blueprint for Urban Design will be administered as part of any future OR 18/Cumulus Avenue interchange project development.

OR-18/Cumulus Avenue – Potential Interim Capacity Improvements

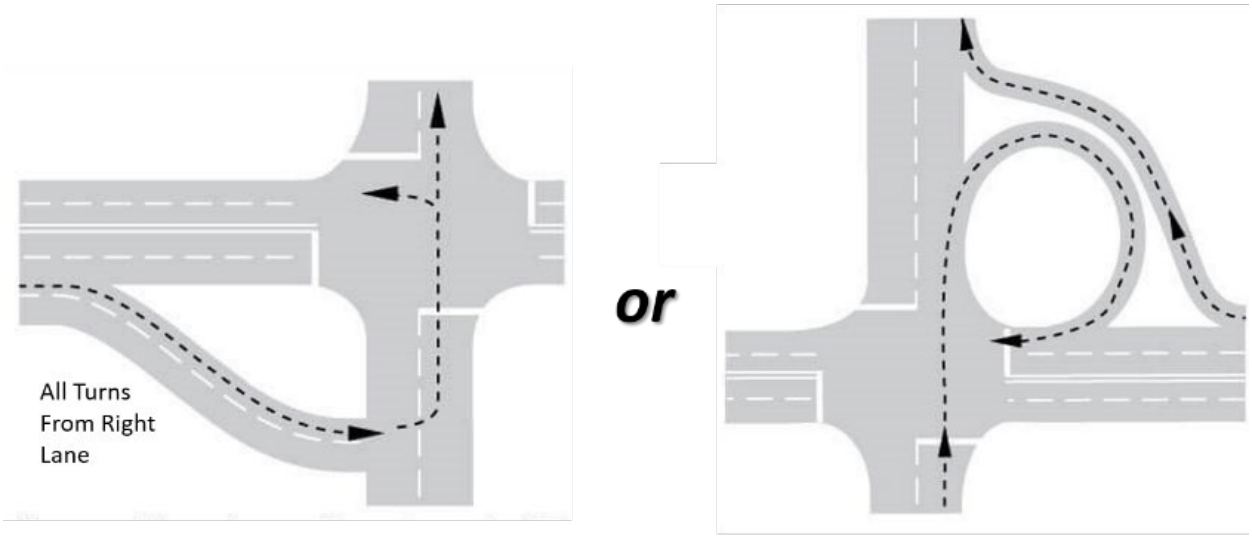
In the drafting of facility design options, the 3MLAP identified a potential need for interim capacity improvements in the form of "jug handles" at the intersection of OR 18 at Cumulus Avenue. The analysis of future traffic operations later indicated that the existing traffic signal at OR 18/Cumulus Avenue will accommodate year 2041 traffic demand without need for additional, vehicle capacity-increasing capital improvements. "Jug Handles" should be considered as a future phase improvement if warranted by mobility standards.

At such a time when the traffic signal can no longer accommodate future traffic and operate within the mobility targets of the OHP, ODOT and the City will require further assessment of potential intersection capacity improvements.

An intersection control evaluation will be needed to determine the final configuration of this intersection, should the existing configuration, jug-handle, or a roundabout improvement be best suited. Final design to be determined through a refinement or project development effort should assess the above-noted considerations.

Any reconfiguration of the intersection traffic control design will need to consider existing traffic patterns and user compliance, as well as the feasibility to operate safely and efficiently with the recommended frontage roads identified in the 3MLAP. Figure 1. Sample Jug Handle Concept Options

Figure 21. *Jug Handle Concepts*



Source: New Jersey Department of Transportation

Future Bicycle/Pedestrian Overpass Consideration

OR-18/Norton Avenue – Potential Bicycle / Pedestrian Overpass

In the adoption process of the 3MLAP, the City identified a future potential need for a bicycle/pedestrian overpass at OR 18/Norton Avenue to facilitate a separated bicycle and pedestrian crossing opportunity. This was not calculated as a need by the 3MLAP transportation analysis.

The City should continue to evaluate the bicycle and pedestrian movements from north to south at this intersection for mobility and safety, and explore opportunities to fund and implement this improvement proactively if determined to be warranted by the community.

City of McMinnville
PLANNING

City of McMinnville
Planning Department
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McMinnville, OR 97128
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www.mcminnvilleoregon.gov

MEMORANDUM

DATE: **September 13, 2022**
TO: **Mayor and City Councilors**
FROM: **Heather Richards, Planning Director**
SUBJECT: **Recommended Amendments to the Three Mile Lane Area Plan – Based on Public Testimony Received**

Mayor and Councilors,

Staff reviewed the public testimony received relative to recommended amendments to the Three Mile Lane Area Plan and is making a recommendation to incorporate the amendments identified in the attached Three Mile Lane Area Plan document. New language is identified by red font, and deleted language is identified by ~~strike-through~~ font.

Since this plan is the product of a public process with a final recommendation from a Project Advisory Committee comprised of community volunteers and the Planning Commission after a series of public hearings and consideration, staff filtered the recommendations through a lens of whether or not the recommended amendment represented a substantive departure from the overall intention of the Plan or whether or not the amendments reflected clarification of the recommended intention of the project advisory committee and planning commission.

SPECIFIC SUGGESTED AMENDMENTS TO THE THREE MILE LANE AREA PLAN PER PUBLIC TESTIMONY (Updated for September 13, 2022, City Council Meeting)

1)	Neighborhood Activity Center on Stratus Avenue west of the hospital.	It does not appear that there is enough land in this area to meet the NAC Code (both mixed-use neighborhood sites are about 50% of the overall area discussed in the NAC) However, the general purposed of the NAC is reflective of the PAC and PC recommendation for these sites. Per the McMinnville Zoning Ordinance, NACs are incorporated through planned development overlays. Perhaps language about incorporating the intent of the NAC or creating an overlay that provides similar attributes to the NAC could be added to the Plan where appropriate. *Provided recommended amendment.*
2)	Remove the reference to a "Mixed-Use Town Center" and replace it with a "Neighborhood Retail Center District Overlay", utilizing the same parameters in the Neighborhood Activity Center overlay, and amend the McMinnville Municipal Code, Chapter 17.50 to reflect the new overlay.	The Neighborhood Activity Center is reliant upon the adjacency of high-density residential development. Residential development is not recommended for this section of the Three Mile Lane Area Plan and therefore the same parameters would not apply. The discussion that resulted in the recommendation for a Mixed-Use Town Center evolved over about twelve months with consultant help identifying community need, what types of retail would respond to that need, what types of retail could help fund the infrastructure for the surrounding industrial land, etc. That same type of analysis, evaluation and due diligence was conducted when the Neighborhood Activity Center was derived. If the City Council wants to change the make-up of the retail site, a similar due diligence is recommended. *Wait for policy direction.*
3)	Rezone M2 Land to ML	This would need to be conducted through a separate legislative process with property owner notice and public hearings but could be a recommendation of the Plan. Need to be careful that it is not so narrow that the Innovation Center is not viable. Needs further review. This was not a recommendation of the PAC or PC directly, but the Innovation Campus definitely does not contemplate heavy industrial uses. *Wait for Policy direction.*
4)	Amend the section "Economy", pages 12- 13 of the Plan.	Perhaps remove the first paragraph. The rest is the summary of the data in the market analysis. *Provided recommended amendment.*

5)	Strengthen the area specific policies in the Plan relative to the GNP	These are the recommendations of the PAC/PC after thoughtful deliberation. The Area Plan is not meant to be a document with specificity equal to a regulatory document but to be used as a guidance document for drafting regulations. *Wait for policy direction.* .
6)	Strengthen the policies on pages 35-36	These are the recommendations of the PAC/PC after thoughtful deliberation. The Area Plan is not meant to be a document with specificity equal to a regulatory document but to be used as a guidance document for drafting regulations. *Wait for policy direction.*
7)	Amend the language to strongly support pedestrian bridge	This is amended language from the PC based on a request from public testimony. However, the initial analysis did not demonstrate the need for a pedestrian bridge in the plan's planning horizon. Language recommends further analysis as incremental growth occurs. Committing public dollars to pay for a pedestrian bridge that has not been fully evaluated was not recommended by the PC. *Wait for policy direction.*
8)	Need language to state that the goals are not listed in any priority order and should all be viewed as equal priorities.	Goals were never discussed as priority order. *Provided recommended amendment.*
9)	P. 43,, First and Third Paragraphs, please supply more detail on this – feels buried and needs more explanation.	*Provided recommended clarifying amendments*.
10)	Page 44, Table 4 – Isn't this where size restriction of commercial properties could go?	These are the recommendations of the PAC/PC after thoughtful deliberation. The Area Plan is not meant to be a document with specificity equal to a regulatory document but to be used as a guidance document for drafting regulations. *Wait for policy direction.* .
11)	Appendix E – page 1, first paragraph – shouldn't these standards apply to all commercial development?	These are simply draft language that will need to be vetted through a public process with a PAC, public engagement and public hearing process. *Add language clarifying that.*
12)	Page 2 – middle of page. Typo, "Bild should be "Build to"	*Amendment recommended*.
13)	Amend the MGMUP and the Comprehensive Plan to remove	This would be considered a substantive amendment and would need an acknowledged analysis to

	the reference to a commercial land-use efficiency by rezoning 40 acres of surplus industrial land to commercial land.	support the findings needed for the amendment – ie an updated EOA that has been acknowledged by DLCD, which could potentially be a multi-year effort. *Wait for policy direction.*
	FOYC Recommendations:	
14)	Make the Retail Center at Cumulus and Highway 18 a Neighborhood Activity Center	Both the Airport Commission and the Oregon Department of Aviation have expressed their concerns about any housing locating in this area. From the beginning of this planning process the PAC agreed not to recommend housing in this area due to proximity to the airport. *This would be a substantive change to the Plan.*
15)	Page 8, amend language to add "support a large employer offering living wage jobs, and a cohesive planned NAC that embodies McMinnville's Great Neighborhood Principles.	Housing, which is a critical element of a NAC is not recommended for this area. Language might limit Innovation Center. The Innovation Center is not about large employers but a campus of businesses of varying sizes. This language could limit the innovation center campus. *This would be a substantive change to the Plan.*
16)	Page 13 – Add language about ED Strategic Plan and remove retail language.	Recommend amendment. This is adopted policy of the City. *Provided recommended amendment.*
15)	Page 13 – Use language from Market Analysis for bullet points.	The summary recommendation is the recommended language of Leland Consulting that was accepted by the PAC. Market Analysis language could supplement that since it is in the appendix of the Plan. *Provided recommended modified amendment.*
17)	Page 34, "Policies", change are intended to shall.	Intention of PAC that policies would guide development. Not seen as a substantive change. *Provided recommended amendment.*
18)	Page 24 – Replace "can" with "shall".	*Provided recommended amendment.*
19)	Page 37 – Replace "are intended to" with "shall".	
20)	Page 45 – Amend language to include "shall" instead of "can" and "should".	*Provided recommended amendment.*
21)	Amend the TMLAP boundary to include the 27.5 acres between the air museum and Highway 18 added to the UGB in 2020.	Adding the acreage to the TMLAP would necessitate amending the transportation modeling and scenarios. ODOT and the consultants estimated that this would cost between $50,000 - $75,000 to

		do so. Since it was not amended into the UGB until April 2021, long after the scope of work and analysis had been completed for the TMLAP, DLCD and ODOT both agreed that it was not necessary for this work. The TMLAP overlay district can encompass this land to ensure that development and design standards are applied to it. The additional acreage will become part of the McMinnville Transportation Model and transportation analysis with the updated Transportation System Plan that will incorporate all of the recent UGB amendment.
22)	Repeal Comprehensive Plan Policy #48.70.	See comments for row #13 above.
23)	Amend Appendix D, Memorandum 8c, Table 7 to include cost estimates for frontage roads, including Cumulus Avenue extensions.	The local collector roads for Highway 18 (frontage roads) that are identified in the TMLAP are the same ones that are identified in the McMinnville TSP and SDC Methodology and were estimated to cost $6.7 Million dollars when the TSP SDC Eligible Project List was generated in May, 2015. These project numbers will be updated with the McMinnville TSP update as well as adding any additional projects identified in the TMLAP.

Three Mile Lane Area Plan – Written Public Testimony Received:

Organizations (7):

- Chehalem Valley Chamber of Commerce
- Friends of Yamhill County / 1000 Friends
- McMinnville Chamber of Commerce
- McMinnville Economic Development Partnership
- Oregon Department of Aviation
- Oregon Department of Transportation
- Yamhill County Parkway Committee

City Residents (53):

• Dave Anderson • Julie Anderson • Michael Bilbrey • Amy Bizon • Christa Brandenburg • Angie Brown • Mike Colvin • Lisa Baker • Rich Blaha • Britt Block • Bill Bordeaux • Nolan Chard • Margaret Cross • Tim Cross • Lynn Crowell • Jim Culbert • Currents Gallery • Kyle Daughtermann • Mark Davis	• John Dolan • John Englebrecht • Peter and Linda Enticknap • Diane Gluskoter • Liz Goings • Ellie Gunn • Carole Hansen • Charles Hillestad • Charles Hottle • Steve Iversen • Jeff Kizer • Dean Klaus • Jim Kreutzbender • Kitri McGuire • Kathleen McKinney • Sharon Morgan • Denise Murphy • Susan Murrant	• Steve and Catherine Olsen • Terry Peasley • Linda Peterson • Nanette Pirisky • Michael Rice • Robin Ricker • Wes Robinson • Rick Rozanski • Anne Stahl • Mike Sullivan • Jerry and Barbara Thomas • Patricia Traboldt • Arthur Van Uchelen • Marie Vicksta • Patti Webb • Sherri Young

Residents Elsewhere (mostly Yamhill County) (28):

• Tom Abrego • Donna Anessi • Tad Beckwith • Peter Crockett • Sid Friedman • Eleanor Fuhrer • Nicholas Gannettino • Peter Gladheart • Dee Goldman • Dahe Good	• Lucien Gunderman • Arnie Hollander • Ron and Connie Hutchinson • Kathryn Jernstedt • Dana Krawczuk • Jason Lett • Ramsey McPhillips • Patty O'Leary • Ilsa Perse • SuAnn Reddick	• Jake Rockwood • Steve Ryan • Rachel Spiegelman • Sam Sweeney • Marcia Thomassen • Marilyn Walster • Susan Watkins • Joni Zimmerman

Did Not Provide Address (29):

• Michael Barton • Jeb Bladine • Kathleen Culbert • Greg Crafton • Dennis Goecks • Todd Haddican • Larry Larson • Dorothy Mayes • Kari Moser • Scott Neubig • Jim Parker	• Leslie Perrin • Jill Poyer • Kyle Putnam • Anne Redl • Roger Redl • Hannah Reid • Pat Ridenour • Ruth Robinson • Anna Rufo • Steve Rupp	• Todd Severson • John Steinhart • Evelyn Stewart • Paul and Linette Studebaker • Brad Thompson • Kurt Wiley • Amanda Winter • Neil Wright

Three Mile Lane Area Plan – Public Engagement Record

Type of Meeting	Date	Notes
Design Charrette (Green Cities, U of O)	July 29, 2017	Mailing to all property owners in the area, social media notification, newspaper articles.
Mailing to all property owners in the area	December 9, 2018	Mailing introducing the project and the project website inviting people to participate and sign up for an interested stakeholder email distribution group
Focus Groups	January 22, 2019	Invited stakeholders representing community leaders in affordable housing, economic development, tourism
Technical Advisory Committee	March 13, 10:00 – 12:00	
Design Charrette	March 14, 2019	Property Owners
Citizen Advisory Committee Meeting	March 14, 2019, 4:00 – 6:00 PM	
Design Charrette	April 4, 2019 6:00 – 9:00 PM	Project Advisory Committee
Public Open House	April 10, 2019, 4:30 – 6:30 PM	Mailing to everyone in the area, social media notification, Press Release Newspaper Article
Public Survey (Online and Hard Copy)	April 1 – April 24, 2019	Social media notification, press releases, newspaper article, McMinnville Public Library, Public Open House
Project Advisory Committee Meeting	June 12, 2019 5:30 – 7:30 PM	
Design Charrette	July 11, 2019 (Part of Town Hall)	Open to General Public – social media notification, press release, newspaper articles
Town Hall	July 11, 2019	Mailing to everyone in the area, social media notification, newspaper articles
City Council Presentation	August 13, 2019	At City Council meeting
Planning Commission Presentation	September 19, 2019	At Planning Commission meeting
Technical Advisory Committee Meeting	April 7, 2021, 9:00 – 12:00	Conducted via Zoom

Project Advisory Committee Meeting	April 7, 2021 5:00 – 9:00 PM	Conducted via Zoom
Virtual Public Open House	April 26 – May 17, 2021	Social media notification, newspaper articles
Joint City Council / Planning Commission Work Session	May, 11, 2021	
Planning Commission Work Session	November 17, 2021	
Planning Commission Public Hearing	January 20, 2022	
Planning Commission Public Hearing	February 17, 2022	
City Council Public Hearing	May 10, 2022	
City Council Public Hearing	June 14, 2022	
Virtual Public Information Session	July 14, 2022	City Wide Mailing Social Media Newspaper Article
Public Open House	July 18, 2022	City Wide Mailing Social Media Newspaper Article
Virtual Public Information Session	July 20, 2022	City Wide Mailing Social Media Newspaper Article
City Council Public Hearing	July 26, 2022	City Wide Mailing Social Media Newspaper Article

City of McMinnville

STAFF REPORT

DATE: August 23, 2022
TO: Jeff Towery, City Manager
FROM: Jennifer Cuellar, Finance Director
SUBJECT: City Services Charge Public Hearing and Ordinance

Strategic Priority and Goal:

CITY GOVERNMENT CAPACITY
Strengthen the City's ability to prioritize & deliver municipal services with discipline and focus.

Report in Brief:

At the Council's 6/22/2021 meeting, the governing body adopted its 2021 Annual Goals; included among them is the following goal under City Government Capacity:

> *Right-Size Services: Address insufficient resources by finding new sustainable funding sources: Looking for ways to bring additional revenue into the City's general fund*

The City Council and the Budget Committee recommended the city follow up on initiating a service fee, among other actions, to support general city services at its October 20, 2021, joint meeting. Resolution 2021-55 regarding sustainable funding sources was adopted by the City Council on November 9, 2021, which formalized the recommendation from the month before.

The FY2022-23 budget approved by the Budget Committee on May 18, 2022, did not include substantial new sustainable resources for the City's general fund and, to avoid budget service reductions for next year, $1.8 million in American Rescue Plan Act (ARPA) funds were used to balance the budget.

At the June 28,2022, Council meeting, Resolution 2022-51 passed, removing the $1.8 million in ARPA supporting general services and replacing it with increased transient lodging tax revenue ($163,000) and nine month's worth of a new city services charge ($1.66 million) in the FY2022-23 McMinnville General Fund budget.

This evening's Council meeting includes a public hearing to receive testimony from McMinnville residents and businesses regarding proposed Ordinance 5123, establishing the city services charge as well as the first reading of this Ordinance. Also included is the draft resolution establishing city service charge rates.

Unfortunately, an updated implementation timeline means that the amount of revenue estimated to be raised by the city services charge will likely be reduced by over half a million dollars.

City Services Charge Implementation in FY2022-23:

City staff have been working with McMinnville Water and Light (MWL) colleagues to move forward the implementation of the city services charge. Unfortunately, the previous estimate that the city service charge could be brought online by October 2022 has been adjusted backwards. The updated timeline from MWL shows that January 2023 is the most likely initial month, though December 2022 might be possible if the contracting and testing phases go faster than anticipated.

A three-month delay on the estimate for nine months of the city services charge in FY2022-23 ($1.66 million) means that the revenues will drop in this first implementation year by one-third, or an estimated $554,000 based on the proposed $13.00 residential monthly charge model. To raise the same $1.66 million in FY2022-23, the fee would need to be a third again higher, or $19.50 per month. If a December 2022 implementation month can be achieved, anticipated revenue loss drops to $370,000 or, to avoid a revenue loss with a two-month delay, rates would have to be $16.70 for the base residential charge. An attachment that outlines the impacts of increasing the city services charge level to maintain the same estimated FY2022-23 revenue from this source is included for reference.

While this delay has a significant impact on the current budget year, staff believes that the more important number to keep in mind is the total annual revenue estimate – the sustained annual contribution to support city services.

The one-time negative impact will be partially absorbed by higher than anticipated vacancy savings, particularly in public safety departments. A mid-year budget status review, when we know how FY2021-22 has closed, which month we will implement in and can better quantify the impact of labor market volatility on near term workforce costs at the city, will provide the opportunity to make programming adjustments, review options for other sustainable revenue sources (such as franchise fees) and/or update FY2022-23 reserve expectations

As noted in the June 28, 2022, staff report on the city services charge (attached), part of the implementation plan is to use current data and run the proposed rate model with that data, a process which will allow staff to refine revenue projections. It is staff's recommendation that if the annual revenue projections are within 5% of the original estimate ($110,900 more or less than the original $2,218,000 anticipated each year), the standard residential rate of $13 per month should remain unchanged. If a larger annual variance appears likely, staff will bring this topic to Council for further discussion on the rate level.

The proposed Ordinance was provided to MWL staff for comment and updates to the initial draft were made to accommodate feedback received.

Next Steps:

In addition to following the process for considering and adopting Ordinance 5123 (first reading planned for on August 23, 2022, and second reading on September 13, 2022), Resolution 2022-57 adopting the rate schedule for the city services charge will be on your September 13, 2022, agenda.

A new rate schedule may be proposed for consideration by Council based on public testimony received in the public hearing, the results of refined revenue projections based on a $13.00 per month residential charge model, and preferences for addressing the current year budget shortfall caused by the implementation delay.

Fiscal Impact:

Moving forward with the city services charge at the $13.00 base rate, will generate an estimated $1.1 million (over six months) or $1.29 million (over seven months). This is $554,000 or $370,000 less than the anticipated revenue of $1.66 million based on nine months of collections for the FY2022-23 budget.

This revenue loss for the current fiscal year will need to be addressed by one or a combination of actions:

- Higher city services charge level
- Additional new sustainable resources
- Cost savings (vacancy savings given the current labor market)
- Higher beginning general fund balance and/or lower general fund ending balance
- Programming reductions

Recommendation:

Adopt Ordinance 5123

Attachments:

1. Ordinance 5123
2. Draft Resolution 2022-57
3. Staff report of June 28, 2022, regarding city services charge implementation
4. Implementation Delay Financial Impacts Summary Information

ORDINANCE NO. 5123

AN ORDINANCE AUTHORIZING A CITY SERVICES CHARGE AND DECLARING AN EMERGENCY

WHEREAS, the City of McMinnville provides numerous general services funded by the General Fund of the city including but not limited to police, fire and ambulance services, library services, parks and recreation services, planning and development services, homeless and housing support services and administrative services dedicated to serving and protecting the public; and

WHEREAS, the City Council has determined that the current level of public services in McMinnville exceeds the capacity of the City General Fund to pay the costs of providing such services; and

WHEREAS, the City Council has determined that to ensure the continuation of such essential service, there is a need for additional funding resources; and

WHEREAS, public services are available for every developed property in the City; and

WHEREAS, the City has the authority to impose new fees to assure the continuation of essential non-proprietary services as determined by the City Council; and

WHEREAS, the City Council has solicited public comment and testimony regarding the proposed fee most recently on August 23, 2022; and

WHEREAS, the City Council finds it in the best interest of the community to create and implement a city services charge;

NOW, THEREFORE, THE COMMON COUNCIL FOR THE CITY OF MCMINNVILLE ORDAINS AS FOLLOWS:

Section 1. PURPOSE OF CITY SERVICES CHARGE. The purpose of the city services charge is to provide funding for public services funded by the General Fund of the city. Public services safeguard, facilitate, and encourage the health, safety, and welfare of the residents and enterprises of the City of McMinnville. Stable and reliable public general services provide a multitude of economic and social benefits to the public, including, but not limited to:

A. Protection of life and property;

B. Reduction in the incidence of crime;

C. Dependable response by First Responders;

D. Recreation and Literacy Services; and

E. Economic Development and support for businesses; and

F. Support of persons in need of shelter and emergency services; and

G. Various other general services of benefit to the public.

The McMinnville City Council finds and determines the necessity of this city services charge to provide a funding mechanism to help pay for the benefits of general public services and to provide an acceptable level of services to the community.

Section 2. DEFINITIONS. For purposes of this Ordinance, the following mean:

A. Non-Residential Unit. A Premise or a portion of a Premise not used for personal, domestic accommodation in independent living facilities. A Non-Residential Unit includes, but is not limited to, governmental, not-for-profit, business, commercial and industrial enterprises. Each portion of a Non-Residential Unit that has permanent provisions for distinct and defined access to an individual enterprise shall be considered as a separate Non-Residential Unit. Enterprises that provide senior living, assisted living, nursing care and similar services exclusively shall be considered non-residential.

B. Premise or Premises. A parcel or portion of a parcel of land within the corporate limits of the City of McMinnville that receives a direct or indirect benefit from public services. It is presumed that a Premise receives a direct or indirect benefit from public services if the Premise is developed. A Premise is presumed to be developed if served by general water service, or electric service or has improvements, including, but not limited to buildings, parking lots or outdoor storage.

C. Residential Unit. A Premise or a portion of a Premise with one or more rooms in a building or portion thereof designed for or that provides complete independent living facilities for one or more persons and includes permanent provisions for sleeping, cooking and sanitation. An accessory or ancillary residential unit on a Premise shall be considered as a separate residential unit. In Premises with two or more apartments, condominiums, mobile homes, or other residential units, each residential unit shall be considered as a separate residential unit for purposes of calculating the city services charge.

D. Residential Electrical Service. Electrical Service Residential electrical service shall be as defined for billing purposes by the McMinnville Water and Light Department, in its current electric service rate schedule.

E. General Service Water Account. A general service water account shall be as defined by the McMinnville Water and Light Department in its current water service rate schedule.

Section 3. ESTABLISHMENT OF CITY SERVICES CHARGE.

A. Except as exempted below, beginning at the earliest with the October 2022 utility bills, a city services charge is established and imposed upon all Premises within the McMinnville City limits.

B. Premises owned by the City of McMinnville are subject to the payment of any city services charge.

C. This Section Reserved.

D. The city services charge for each residential and non-residential electrical service utility account or for each general service water utility account shall be established by resolution as shown on any Resolution Adopting City Service Charge rates.

E. Residential Units and Non-Residential Units that are the basis for calculating the city services charge do not in any way create an obligation of the property or Premises and the obligation to pay the city services charge is a personal obligation of the customer responsible for payment of the City utility account. No lien will attach to any Premise because of the nonpayment of the city services charge.

F. All developed properties receive a direct or indirect benefit from public services. Unless specifically exempted, the city services charge applies to all City of McMinnville utility accounts, including those that serve local, state and federal governments, and to utility accounts that serve Premises that are entitled to an exemption from or deferral of ad valorem property taxes.

G. The city services charge described herein is not subject to the property tax limitations of Article IX, Sections 11b and 11(19) of the Oregon Constitution and is not a fee imposed on property or property owners by fact of ownership.

Section 4. AMOUNT OF CITY SERVICES CHARGE. The amount of the city services charge shall be set or modified by McMinnville Council Resolution. In addition, the Council may set by Resolution fees for extra services required in collecting delinquent customer accounts for the city services charge.

Section 5. ADJUSTMENT OF CITY SERVICES CHARGE. The amount of the city services charge shall automatically increase annually based upon the September CPI-U West C index figure published by the federal government. The adjustment shall not exceed five percent in one year. The City Council may elect to defer all or any portion any such increase by Resolution of the City Council.

Section 6. DEDICATED FUNDS.

Money received from the city services charge shall be used for any or all purposes funded by the City General Fund as determined each year during the budget process. The city services charge shall not be used for any other

governmental or proprietary functions of the City, and shall not accrue to or be available to the McMinnville Water and Light Department except to the extent of any actual cost of billing and collection costs incurred. Any revenues in excess of actual expenses as identified in the budget process shall be carried forward to the next year's General Fund budget.

Section 7. BILLING.

A. The customer(s) responsible for paying the City utility account is responsible for payment of the city services charge. For non-utility Premises, the property owner as set forth in the Yamhill County tax records shall be the responsible party.

B. The City shall collect the city services charge by adding the city services charge to the utility bill of each customer in the City of McMinnville. For non-utility accounts, the billing shall be mailed to the property owner's address as set forth in the County property records, unless such owner requests the billing be sent to a different address.

C. If a residential Premise has more than one utility account, the city services charge for the Premises shall be calculated for each Residential Unit on the Premise at the multi-family dwelling unit rate. Non-residential premise city service charges shall be based on water utility meters, whether one or more separate businesses operate on that premise.

D. Charges for electricity, water, wastewater and city services charge, may be billed on the same utility bill. If full payment of utility billing is not made, payment shall be applied in the following order:

i. Electricity fee, Sewer fee and Water fee as normally allocated by the McMinnville Water and Light Department from such combined payment; and then to the:

ii. City Services Charge.

E Pursuant to ORS 294.316(7), the Water and Light Department is a municipal utility operating under a separate Commission without ad valorem tax support. Pursuant to a billing services agreement between the City and the McMinnville Water and Light Department, the City may authorize the McMinnville Water and Light Department to perform the city service charge billing function at cost. The McMinnville Water and Light Department will continue to operate without General Fund support from the city service charge and shall otherwise keep Water and Light Department funds separate and apart from the General Fund.

Section 8. PAYMENT DUE DATE. The city services charge shall be due the same date as the utility bill.

Section 9. ADJUSTMENT OF ACCOUNTS.

A. Customers who believe their city services charge, as applied to their Premise, is not within the intent of this Ordinance may request, in writing, a review of their city services charge by the Finance Director. The Finance Director may initiate a review of a customer's city services charge.

i) If a customer's charge is reduced as a result of this review, the corrected city services charge shall begin with the next billing.

ii) If a customer's charge is increased as a result of this review, the corrected city services charge shall begin with the next billing.

B. If an existing customer has not been billed for the city services charge, the city services charge shall begin with the next billing and the customer may be billed retroactively, not to exceed one year.

C. Customers not satisfied with the results of the review by the Finance Director may appeal the Finance Director's decision to the McMinnville City Manager who shall determine, by preponderance of the evidence, whether the Finance Director's decision should be upheld or reversed, or upheld in part and reversed in part. A Notice of Appeal must be in writing and physically delivered to the Finance Director no later than fourteen (14) calendar days from the date of the Finance Director's decision. The hearing before the McMinnville City Manager shall be conducted no later than twenty (20) days from the date of the appeal, unless a different date is stipulated by the City and the customer, or good cause is shown for setting the matter forward. Testimony at the hearing shall be taken upon oath or affirmation of the witnesses. The City Manager shall consider only the matters set forth in the Notice of Appeal. The Findings and Decision of the City Manager shall be served upon the customer by first class mail within ten (10) days after the hearing concludes. The City Manager decision shall be effective ten (10) days following the date of the decision. The Findings and Decision of the City Manager shall be final and conclusive, subject only to writ of review under ORS 34.010 to 34.100, which shall be the sole remedy.

D. The Finance Director may write off closed accounts and retroactive bills if it is in the best interest of the City and may write off refunds, unless the customer requested otherwise, if the cost of making the refund would exceed the amount of the refund.

Section 10. DELINQUENCY.

A. A city services charge is delinquent if payment in full is not received on or before the due date.

B. If a customer's utility account is delinquent for city services charge only, and that delinquency does not exceed sixty (60) days, the City may not discontinue electric or water services billed on that account. However, the City may refuse to restore utility service or services to the Premises if the delinquent city services charges and other costs incurred are not paid.

C. Delinquent amounts owing may be collected by all legal means, including, but not limited to the referral or assignment to a collection agency.

Section 12. EMERGENCY. The City Council for the City of McMinnville deems it necessary for the preservation of the health, peace and safety of the City of McMinnville that this Ordinance take effect at once, and therefore an emergency is hereby declared to exist and this Ordinance shall be in full force and effect from and after its passage by the Council and approval by the Mayor.

ENACTED by the City Council on the _____ day of _____ , 2022, by the following votes:

Ayes:_____

Nayes: _____

Abstained: _____

Absent: _____

DATED and signed by the Mayor this _ day of _____, 2022.

_____
MAYOR

Approved as to form: Attest:

_____ _____
City Attorney City Recorder

RESOLUTION NO. 2022-57

A Resolution adopting city service charge rates.

WHEREAS, the City Council of the City of McMinnville, has previously adopted Resolution 2021-55 authorizing the assessment and collection of a City Services Charge to add sustainable resources for city services supported by the General Fund; and

WHEREAS, Section 3 of Ordinance No. 5123 authorizes the City Council, by resolution, to specify the applicable rates for a City Services Charge, and the City Council desires to establish the following city services charges to be paid by the following categories of residents, businesses and property owners for properties located within the city limits.

NOW, THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMINNVILLE, OREGON, as follows:

1. The City Council hereby adopts and establishes the following rates to be charged to the following categories of developed properties located within the city that are receiving utility services:

Rate Class that City Services Charge is based on	Device detail and/or size	Monthly Charge	Description	
Residential Electrical Service	Standard rate	$13.00	Default – Standard Residential Electrical Service utility customer, unless otherwise identified as Multi-Family or Low Income below.	
Residential Electrical Service	Multi-Family (M.F.)	$9.75 (75%)	Multi-Family residential customer in premises with two or more apartments, condominiums, mobile homes or other residential units unless otherwise identified as L.I. below.	
Residential Electrical Service	Low Income (L.I.)	$1.30 (10%)	Low Income. Customers participating in federal or state low income assistance programs or the Customers Helping Customers program at McMinnville Water and Light within with last 24 months.	
General Service Water	5/8”	$13.00	5/8” water meter	100% Standard rate
General Service Water	¾”	$13.00	3/4” water meter	100% Standard rate
General Service Water	1”	$21.67	1” water meter	167% Standard rate

General Service Water	1 ¼”	$26.00	1 1/4” water meter	200% Standard rate
General Service Water	1 ½”	$43.33	1 1/2" water meter	333% Standard rate
General Service Water	2”	$69.33	2” water meter	533% Standard rate
General Service Water	3”	$198.67	3” water meter	1067% Standard rate
General Service Water	4”	$216.67	4” water meter	1667% Standard rate
General Service Water	6”	$433.33	6” water meter	3333% Standard rate
General Service Water	8”	$693.33	8” water meter	5333% Standard rate
General Service Water	10”	$1,820.00	10” water meter	14000% Standard rate

2. Residential city services charges will be based on residential electric service categories as noted in above table and all non-residential city services charges will be based on general service water meter size.

3. The City Services Charge will take effect as soon as is practical, but not earlier than October 1, 2022, and shall be implemented as a separate charge on the McMinnville Water and Light utility invoices received by utility customers for properties located within the City limits.

4. This resolution will take effect immediately upon passage and shall continue in full force and effect until revoked, replaced or modified.

Adopted by the Common Council of the City of McMinnville at a regular meeting held the ___th day of _____, 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this ___th day of _____ 2022.

_____
MAYOR

Approved as to form:

_____
City Attorney

Attest:

_____
City Recorder

City of McMinnville

6/22/2022 UPDATE:
9 months at $13 base

STAFF REPORT

DATE: June 28, 2022
TO: Jeff Towery, City Manager
FROM: Jennifer Cuellar, Finance Director
SUBJECT: City Services Charge and replacing $1.8 million in American Rescue Plan Act (ARPA) Funds in FY2022-23 budget

Strategic Priority and Goal:

CITY GOVERNMENT CAPACITY
Strengthen the City's ability to prioritize & deliver municipal services with discipline and focus.

Report in Brief:

At the Council's 6/22/2021 meeting, the governing body adopted its 2021 Annual Goals; included among them is the following goal under City Government Capacity:

> *Right-Size Services: Address insufficient resources by finding new sustainable funding sources: Looking for ways to bring additional revenue into the City's general fund*

The City Council and the Budget Committee recommended the city follow up on initiating a service fee, among other actions, to support general city services at its October 20, 2021, joint meeting. Resolution 2021-55 regarding sustainable funding sources was adopted by the City Council on November 9, 2021, which formalized the recommendation from the month before.

The FY2022-23 budget approved by the Budget Committee on May 18, 2022, did not include substantial new sustainable resources for the City's general fund and, to avoid budget service reductions for next year, $1.8 million in ARPA funds were used to balance the budget.

At the May 24,2022, Council meeting, Mayor Remy Drabkin received support from council to renew discussions regarding resource options that had been considered and recommended as part last year's effort to address insufficient resources available to the general fund in hopes of eliminating the need of utilizing ARPA funds for general operating needs.

City Services Charge Implementation in FY2022-23:

Setting a base monthly City Services Charge rate of $13.00 will allow the Council to replace the $1.8 million in ARPA dollars included in the FY2022-23 city budget

appropriation documents also included in the June 28, 2022, Council meeting packet.

McMinnville City Services Charge Rate Dashboard

Base Assumptions	EDU Factors	Monthly Charge
Base Rate per EDU/Month		$ 13.00
Low Income Discount	10%	$ 1.30
Multifamily Unit EDU %	75%	$ 9.75

Customer Class	Uniform EDU Rate*
Residential**	$ 1,475,916
Res Multi-Dwelling	$ 343,161
General Service	$ 398,736
TOTAL REVENUE	**$ 2,217,813**
ANNUAL REVENUE (%)	
Residential**	66.55%
Res Multi-Dwelling	15.47%
General Service	17.98%
TOTAL	100.00%

* preferred option 3 structure, including use of electric meters for residential customers and update to remove multi-unit general service counts
** includes estimate for 1,000 low income discounts for residential payers

Considerable attention has been given to equity measures to apply discounts for residents in McMinnville who live in multi-family residential areas and for those who face economic hardship and qualify for other low-income assistance programs.

While we do not know the “burdened” rate of households in multi-family vs single-family (burdened is a calculation from the Department of Housing and Urban Development for households that pay more than 30% of their income on housing), we do know that 52% of renters in McMinnville are cost burdened, compared to 25% or homeowners. Based on this information and the general approach our rate consultant has seen other cities utilize for similar service charges, the proposed dwelling unit proportion to the base fee reflects a 25% discount for people who live in apartments and mobile home parks. For members of our community who meet standards utilized for federal assistance, the discount is 90%.

This rate structure should be sufficient to replace the ARPA funds currently supporting the general fund budget in combination with the additional resources estimated to be available due to updating the Transient Lodging Tax (TLT) dollars coming to the City both in FY2021-22 and FY2022-23.

It merits noting that local government budgets are appropriated by expenses, not revenues. Therefore, replacing one revenue source for another does not affect the

budget appropriation itself. In this case, because TLT revenues play a part in reaching the $1.8 million level, a minor change to the general fund's ending fund balance (which is included in the budget appropriation) would be needed, an action which can be addressed as a FY2022-23 supplemental budget at a later date.

FY2022-23 ARPA replacement revenue

1,663,360	City Services Charge Revenue est raised Oct 2022-Jun 2023
163,269	TLT increases already contemplated in Appropriated Budget
1,826,629	

The rate structure presented here is based on Option 3 out of the four possible designs prepared by the City's rate consultant. At the Council meeting on May 22,2022, staff received feedback from elected officials that the Option 3 was the preferred methodology.

The rate structure presented today has two updates to it based on discussions with McMinnville Water and Light on June 14, 2022:

1. Residential city service charges will be based on electric meters and will preserve the ability to also include a lower rate for multi-family housing residents. These measures will be critical in meeting equity objectives and reducing the impact of this charge on the most economically vulnerable members of the community.
2. General Service customers will continue to have their rate based on water meter size and that the model will remove the multi-site component previously used in Option 3 of the model. The thinking here is that it would be more equitable for small businesses that share a larger water meter to divide that cost with their co-tenants in whatever manner they agree to over issuing individual invoices at a cost determined by the City.

The rate summary underlying the above methodology applied to the $13.00 base rate is below.

City Services Charge Rate Summary

Meter Size	Meters[1]	Meter Factor	$/Month	
Residential	9,361	1.00	$13.00	
Res low income discount	1,000	0.10	$1.30	
Res multi fam discount	2,933	0.50	$6.50	
Gen Svc 3/4"	349	1.00	$13.00	
1"	211	1.67	$21.67	
1 1/4"	-	2.00	$26.00	
1 1/2"	119	3.33	$43.33	
2"	142	5.33	$69.33	
3"	22	10.67	$138.67	
4"	20	16.67	$216.67	
6"	4	33.33	$433.33	
8"	-	53.33	$693.33	No sewer customers with water meters this large
10"	-	140.00	$1,820.00	No sewer customers with water meters this large

[1] Does not include MWL "Water Only" customers.

While the data set available regarding electric and water customers and rate structure calculations produce specific numbers, the actual numbers will vary. In addition, further work in partnership with McMinnville Water and Light and their billing software company will likely result in further updates to the rate model. Finally testing the data with a mock billing will further allow us insights to assure that no resident or business is inadvertently double billed based on water meters for general service (commercial and industrial customers) and electric meters for residential utility users. It is possible this work will allow a change, more likely a reduction, to the $13.00 base rate.

Next steps:

In addition to continued work with McMinnville Water and Light, staff will also need to draft an ordinance establishing the City Services Charge and a resolution setting the rate, defining the rate structure, finalizing equity measures, and enumerating other details associated with a new revenue stream.

Fiscal Impact:

Moving forward with the City Services Charge at the $13.00 base rate, in combination with TLT increases, will allow the City to remove ARPA dollars for general operating costs in the general fund in the FY2022-23 budget.

Recommendation:

Adopt Resolution 2022-51

Attachments:

Resolution 2022-51

RESOLUTION NO. 2022-51

A Resolution removing $1.8 million in American Rescue Plan Act (ARPA) revenue for general operating purposes in the general fund.

RECITALS:

The City of McMinnville's FY2022-23 budget includes $1.8 million in ARPA funds for general operating purposes within the General Fund. Implementation of a City Services Charge during the first half of FY2022-23, in combination with higher estimates revenues from Transient Lodging Tax, will allow the city to remove the ARPA funds from the budget without negatively impacting FY2022-23 programming.

Whereas, Transient Lodging Tax projections have been increased for both FY2021-22 and FY2022-23 in prior resolutions, generating a projected $163,000 in new revenue; and

Whereas, nine months of a new City Services Charge is estimated to raise $1.66 million more in new revenues for the FY2022-23 period,

NOW THEREFORE, BE IT RESOLVED BY THE COMMON COUNCIL OF THE CITY OF McMINNVILLE, OREGON as follows:

1. The City will adopt a City Services Charge during FY2022-23, the program to be established with an upcoming Ordinance process and with detailed terms and conditions defined in a companion resolution, to be established during FY2022-23
2. The City will remove the $1.8 million in ARPA general operating revenue for the General Fund from the FY2022-23 budget

Adopted by the Common Council of the City of McMinnville at a regular meeting held the 28th day of June, 2022 by the following votes:

Ayes: _____

Nays: _____

Approved this 28th day of June, 2022.

_____

MAYOR

Approved as to Form:

_____

CITY ATTORNEY

Attest:

_____

CITY RECORDER

City Services Charge Implementation Delay Financial Impacts Summary

FY2022-23 City Services Charge Estimates

To replace American Rescue Plan Act (ARPA) of $1.8 million

1,663,360	City Services Charge Revenue est raised Oct 2022-Jun 2023
163,269	TLT increases already contemplated in Appropriated Budget
1,826,629	
(369,636)	**Two month delay - Dec 2022 implementation**
(184,818)	One more month delay - Jan 2023 implementation
(554,453)	**Total potential delay financial impact on FY2022-23**

City Services Charge Rates that raise $1.66 million in FY2022-23

Meter Size	Meters[1]	Meter Factor	$/Month for 9 months	$/Month for 7 months	$/Month for 6 months
Residential (electric meter)	9,361	1.00	$13.00	$16.70	$19.50
Res low income discount	1,000	0.10	$1.30	$1.67	$1.95
Res multi fam discount	2,933	0.75	$9.75	$12.53	$14.63
Gen Svc 5/8" or 3/4" water meter size	349	1.00	$13.00	$16.70	$19.50
Gen Svc 1" water meter size	211	1.67	$21.67	$27.83	$32.50
Gen Svc 1 1/4" water meter size	-	2.00	$26.00	$33.40	$39.00
Gen Svc 1 1/2" water meter size	119	3.33	$43.33	$55.67	$65.00
Gen Svc 2" water meter size	142	5.33	$69.33	$89.07	$104.00
Gen Svc 3" water meter size	22	10.67	$138.67	$178.13	$208.00
Gen Svc 4" water meter size	20	16.67	$216.67	$278.33	$325.00
Gen Svc 6" water meter size	4	33.33	$433.33	$556.67	$650.00
Gen Svc 8" water meter size	-	53.33	$693.33	$890.67	$1,040.00
Gen Svc 10" water meter size	-	140.00	$1,820.00	$2,338.00	$2,730.00

[1] Does not include MWL "Water Only" customers.

Customer Rate Class	FY23 for 9 months	FY23 for 7 months	FY23 for 6 months
Residential*	$ 1,106,937	$ 1,105,991	$ 1,106,937
Res Multi-Dwelling	$ 257,371	$ 257,151	$ 257,371
General Service	$ 299,052	$ 298,796	$ 299,052
TOTAL REVENUE	**$1,663,360**	**$ 1,661,938**	**$1,663,360**
ANNUAL REVENUE (%)			
Residential*	66.55%	66.55%	66.55%
Res Multi-Dwelling	15.47%	15.47%	15.47%
General Service	17.98%	17.98%	17.98%
TOTAL	100.00%	100.00%	100.00%

Customer Class	Annual @ 13.00 base	Annual @ 16.70 base	Annual @ 19.50 base
Residential*	$ 1,475,916	$ 1,895,984	$ 2,213,874
Res Multi-Dwelling	$ 343,161	$ 440,830	$ 514,742
General Service	$ 398,736	$ 512,222	$ 598,104
TOTAL REVENUE	**$ 2,217,813**	**$2,849,037**	**$3,326,720**

* includes estimate for 1,000 low income discounts for residential payers

ENTERED INTO THE RECORD
DATE RECEIVED: 09/13/2022
SUBMITTED BY: Maeshowe Pierce
SUBJECT: Agenda Item 7a - City Service Charge

From: Adam Garvin
To: Claudia Cisneros
Subject: FW: Increasing Tax $13 Vote NO
Date: Tuesday, September 13, 2022 8:03:03 PM

Can you enter this into the record.

From: Maeshowe Pierce <wholelifenaturopath@gmail.com>
Sent: Tuesday, September 13, 2022 7:48 PM
To: Adam Garvin <Adam.Garvin@mcminnvilleoregon.gov>
Subject: Re: Increasing Tax $13 Vote NO

This message originated outside of the City of McMinnville.

Hi Adam,

That would be great. Thank you. I thought emailing my ward was the best way to voice my opinion.

On Tue, Sep 13, 2022 at 7:13 PM Adam Garvin <Adam.Garvin@mcminnvilleoregon.gov> wrote:

> Maeshowe,
>
> Thank you for your thoughts. Would you like me to forward this to the rest of council / enter this into the public record?
>
> **From:** Maeshowe Pierce <wholelifenaturopath@gmail.com>
> **Sent:** Tuesday, September 13, 2022 1:14 PM
> **To:** Adam Garvin <Adam.Garvin@mcminnvilleoregon.gov>; Jessica Payne <Jessica.Payne@mcminnvilleoregon.gov>
> **Subject:** Increasing Tax $13 Vote NO
>
> **This message originated outside of the City of McMinnville.**
>
> Hello City Councilors,
>
> I am in your distract and would like you to vote no on the proposed tax increase for McMinnville Water and Light Electric that is to go to the General Fund. I am working with families in the community who cannot even afford gas let alone $10-$13 more a month just to have an account for electricity. This should go to a city vote and the community should decide on it. This is a huge increase in taxes at one time and for a "General" fund.

> Please take my opinion into consideration. I have also asked around for the past few days and have yet to speak to anyone who agrees with it.
>
> Thank you.
>
> --
> Maeshowe Pierce ND

--
Maeshowe Pierce ND