CITY OF DUNDEE
CITY COUNCIL MEETING
Fire Hall Community Room

Phone ***(503) 538-3922 ~ Fax (503) 538-1958***

Email: Dundeecity3@comcast.net Website: DundeeCity.org

The Mission of City Government is to provide essential, quality public services in support of the livability, safety and viability of the Dundee community.

JANUARY 15, 2019 7 - 9 PM.

Times printed are estimates. Actual time may vary.

1. Open Regular City Council Meeting

2. Pledge of Allegiance

3. Amendments to the Agenda, if any

4. Public Comment: Each speaker will be allowed up to 5 minutes to speak after being recognized by the Mayor. Out of courtesy for the speaker, please refrain from talking.

5. Consent Agenda: The following items are considered to be routine and will be enacted by one motion. There will be no separate discussion of these items unless a Council member (or a citizen through a Council member) so requests, in which case the item will be removed from the Consent Agenda and considered separately. If any item involves a potential conflict of interest, Council members should so note before adoption of the Consent Agenda.

   5.1 City Council Minutes, January 2, 2019
   Action Required: Motion to Accept the Consent Agenda

6. Old Business:
   6.1 Water Supply Study – MurraySmith Engineering — Pages 1-14
   Discussion

7. New Business:
   7.1 Parkway Committee DC Delegation — Pages 15-16
   Action Requested
   7.2 Outdoor Burning — Pages 17-20
   Discussion
   7.3 Tourism Committee Appointments — Pages 21-22
   Action Requested

8. Council Concerns & Committee Reports

9. Mayor's Report

10. City Administrator Report

11. Public Comment: Each speaker will be allowed up to 5 minutes to speak after being recognized by the Mayor. Out of courtesy for the speaker, please refrain from talking.

12. Adjourn

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Pending Business:

1. Public Works
   - 1.1 Highway 99W Sidewalk/Streetscape
   - 1.2 Inflow & Infiltration Program

2. Planning/Land Use
   - 2.1 Dundee Riverside Master Plan – Future Actions
   - 2.2 Exterior Lighting – Code Update/Street Light Standards
   - 2.3 Helipad Standards

3. City Council
   - 3.1 Update SDC Methodologies
   - 3.2 LID 2013-01 Final Assessment Ordinance
   - 3.3 LID 2016-01 Final Assessment Ordinance
   - 3.4 Storm Drain Master Plan Update

4. Parks & Trails
   - 4.1 Harvey Creek Trail Property Rehabilitation
   - 4.2 WWTP Nature Park

5. Next Available Ordinance & Resolution No's.
   - 5.1 Ordinance No. 567-2018
   - 5.2 Resolution No. 2019-01

The meeting location 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 at least 48 hours in advance of the meeting to the Administrative Assistant at City Hall (503) 538-3922.

Technical Memorandum

Date: January 10, 2019

Project: Dundee Future Water Use Evaluation

To: Rob Daykin, City Manager
City of Dundee

From: Lael Alderman, P.E.
Natalie Jennings, P.E.
Preston Van Meter P.E. (QA/QC)
Murraysmith

Introduction

The City of Dundee (City) is in the process of developing planning-level requirements, codes and standards for future development of the Riverside area located westerly and adjacent to the Willamette River and within close proximity to the City's wastewater treatment plant.

The proposed development will significantly increase drinking water demands and tax the City's distribution system. The City's drinking water supply is provided by wells distributed throughout the community. Due to the large increase in drinking water demand that will come from development of the Riverside area, the City would like to identify viable alternatives to assist with optimizing, expanding, and providing improved redundancy for the City's current potable drinking water supply.

A previous recycled water use evaluation prepared for the City identified the highly treated water from the City's membrane bioreactor (MBR) wastewater treatment facility as a key potential contributor to help offset the increased drinking water demands associated with development of the Riverside area. Another asset available for consideration is the City's Well #4, which is not used for potable water supply because it has been identified as surface water influenced.

This evaluation addresses three key questions associated with the potential part these two potential sources could play in offsetting the City's increased water demands as the Riverside area is developed:

1. How much non-potable water demand is anticipated in the Riverside area for irrigation and other non-potable uses?

2. If this demand is high enough, is it cost-effective or viable to consider using WWTP recycled water or Well #4 non-potable water for irrigation and other non-potable uses?
3. If the answer to Question #2 is YES, does the use of WWTP recycled water or Well #4 non-potable water delay the need for augmenting the City's drinking water demand associated with the Riverside area?

This evaluation seeks to answer these questions by analyzing:

- Review of the City's current and future potable drinking water demands;
- Potential Riverside District water demand for irrigation and non-potable water and potential annual revenues;
- Impact of the potential Riverside District irrigation or non-potable water demand on the City's overall drinking water demand projections
- Near-term Options to Offset Drinking Water Supply
- Costs associated with the development of recycled water or non-potable distribution system in the Riverside District;
- Cost Benefit Analysis Associated with Well #4 and Class A Recycled Water

Current and Future Drinking Water Demands

This section develops population projections and estimated water demands for Dundee's water service area. Population and water demand forecasts are developed from previous City water supply planning efforts, historical water demand records, and current land use designations.

Current Drinking Water Demands

The term "water demand" refers to all the water requirements of the system, including domestic, commercial, municipal, institutional, irrigation, and industrial, as well as unaccounted-for water. Demands are discussed in terms of gallons per unit of time such as gallons per day (gpd), million gallons per day (mgd) or gallons per minute (gpm). Demands are also related to per capita use as gallons per capita per day (gpcd).

For the purposes of this study, existing system demands consist of water use reported in the City's most recent Water System Master Plan (WSMP) (CH2M Hill, 2016). The City has noted no significant changes have been observed in water service area population and overall demands since the adoption of the WSMP two years ago. Historic water use demands are provided in **Table 1**.

Based on historical water usage patterns and historical population, the water service area's average day demand (ADD) has been approximately 0.35 mgd with a per capita consumption of approximately 107 gpcd. Recent maximum day demand (MDD) usage has been as high as approximately 0.77 mgd in 2012, equivalent to a maximum per capita usage of approximately 231 gpcd; however, in 2014, MDD was reported at approximately 0.64 mgd, equivalent to approximately 207 gpcd. The WSMP uses the 2014 numbers for analysis, so this analysis does too.

Table 1
Existing Drinking Water Demand Summary

Year	Population	Water Demand (mgd)	
		Average Day Demand	Maximum Day Demand
2014	3,335	0.35	0.64

Source: City of Dundee WSMP, Table 3-6.

Future Drinking Water Demand Projections

Future water demand estimates for inside the existing City Limits were developed by projecting historical flows forward using the same relative growth rate as the population growth rate. For the purposes of this reporting, estimated average and maximum day water usage per capita are both assumed to remain constant at values developed in the WSMP at approximately 107 gpcd and 207 gpcd, respectively. As growth continues, both residential infill and zoning expansions are expected, resulting in an increased population density and an overall water demand. The expansion area is anticipated to be fully within the Riverside Development.

Riverside Master Plan Area Introduction

For planning purposes, the Riverside Master Plan (Angelo Planning Group, 2011) is estimated to add 970 equivalent dwelling units (EDUs) to the City's drinking water demands in the 100 acres of developable area. This is the middle of the range of the potential buildout, in which proposed regulations to implement the Plan will allow for densities of 8 to 11 dwelling units per acre (800 to 1,100 EDUs). It should also be noted that current discussions related to residential development in the Riverside District may allow developers to convert up to 75% of commercial areas for residential use, which may contribute an additional 130 to 180 EDUs to future residential growth projections.

To develop future water demand forecasts for the district, the City wanted to account for potential peak/irrigation demands on the smaller lots in the Riverside District. This was done by reviewing historical water usage for targeted higher density areas in the community in August and November 2018. Results of this analysis are shown in the top portion of Table 2. From these results, it was determined that approximately 173 cf/month/1,000 sq. ft. is used for irrigation in the community. The estimated usages of the proposed lot sizes are shown in the bottom portion of Table 2.

Table 2
Existing Property Water Use Inventory (All units are cubic feet (cf)).

Property Size	Winter Demand	Summer Demand	Difference	Irrigation Factor
5,000 sq. ft.	621	1123	502	1.8
7,000 sq. ft.	574	1242	668	2.2
9,000 sq. ft.	613	1461	848	2.4
Duplex	541	677	136	1.3
Apartment	354	1162	808	3.3
4,000 sq. ft.	621	950	329	1.5
6,000 sq. ft.	574	1069	495	1.9
10,000 sq. ft.	613	1634	1021	2.7

For the purposes of this study, it is assumed development of the Riverside District to build-out takes about 15 years from project inception to completion. It is not known at this time when development of the Riverside District begins; however, for analysis and graphical purposes, it was assumed this construction would begin in 2021. The City anticipates this is approximately the amount of time required to get the large-scale developments permitted, designs completed, and a contractor on board. Build-out for the district, then, would be completed by 2036. For ease of demonstration, population growth for the Riverside District is assumed to be completed in a linear fashion.

Future Drinking Water Demands including the Riverside District

Population projections and anticipated water demands for the City in 2035 are summarized in **Table 3**. Projections were completed through 2035 based upon data developed in the WSMP; population projections for the City's service area beyond this timeframe are outside the scope of this reporting.

Table 3
Population Forecast and Estimated Water Demand Summary in Year 2035

Demand Type	Population	Water Demand (mgd)	
		Average Day Demand	Maximum Day Demand
Existing customers (Year 2014)[1]	3,335	0.35	0.64
Infill within existing service area[2]	218	0.02	0.09
Riverside District[3]	2,619	0.28	0.54
Totals	**6,172**	**0.65**	**1.27**

[1] Source: City of Dundee WSMP, Table 3-6.
[2] Source: City of Dundee WSMP, Table 3-8.
[3] Assumes build-out within Riverside District.

Riverside District Potential Irrigation or Non-potable Water Demands

While a varying range of non-potable demands could potentially be served by recycled or non-potable water within the Riverside District, these demands are difficult to quantify without a better understanding of the ultimate development of individual sites and potential demand for recycled or non-potable water. Therefore, for this initial evaluation, the primary focus has been placed on an evaluation of potential irrigation demands.

Projected irrigation demands for the Riverside District are captured in the maximum daily demand (MDD) figures calculated for the area. Irrigation water is currently provided by the City as potable water. The City is interested in potentially offsetting total water demand for the area with the use of non-potable water for irrigation.

Irrigation demands can be quantified by multiplying an agronomic rate (the measure of how much water is needed to maintain specific plants in a specific location) by the size of area to be irrigated. For the purpose of this analysis, an agronomic rate, typical of Dundee and the surrounding Yamhill County area, of 1 inch per week was used in the calculations.

Potential irrigation demands for the Riverside District are approximated in **Table 4**. Projected irrigation demands for Residential, Nature Park and Wastewater Treatment Plant (WWTP) land use designations are not included in these calculations. Costs estimates also do not include customer meter installation, annual backflow device testing, and lateral lines. Land designated as Nature Park and WWTP are assumed to not require irrigation from a potable or non-potable water distribution system as they are watered with local water from the WWTP.

Table 4
Potential Riverside District Irrigation Demands

Land Use Designations	Acres	% Landscaped	Irrigated Acres	Daily water need (gal/day)	(mgd)
Commercial	22	15%	3.3	12,800	0.013
Light Industrial	13	10%	1.3	5,043	0.005
Neighborhood Park	8	90%	7.2	27,928	0.028
Roads (excluding bypass)	29	5%	5.5	21,371	
Trails/ green seams	23	75%	17.25	66,911	
Newberg Dundee Bypass Corridor	27	10%	2.7	10,473	
Total	122	8%	37.26	144,527	

Source: Riverside District Master Plan, Table 1.

Assumptions for determining the amount of irrigable land and projected irrigation demands within the Riverside District are detailed as follows by individual land use type.

Commercial Light Industrial Irrigation

Commercial and Light Industrial irrigation demand calculations are based on the percentage of land required to be landscaped within each zone as required by the Dundee Development Code, Section 17.302.

Neighborhood Park Irrigation

Neighborhood parks were approximated to be 90% landscaped with plants that require irrigation. The remaining potions of the parks are assumed to be hardscaped.

Arterial Roads Irrigation

Arterial roads within the Riverside District are anticipated to have landscaped shoulders approximately 10 feet wide on either side of the road. The length of arterial roads used in this analysis was determined by the length of the divisions between planned areas A through G as shown in the Riverside Master Plan.

Trails/ Green Seams Irrigation

Trails and green seams within the Riverside District are assumed to need partial irrigation. It is estimated that approximately 75% of this area will need irrigation, and the rest will be native vegetation.

Newberg Dundee Bypass Corridor Irrigation

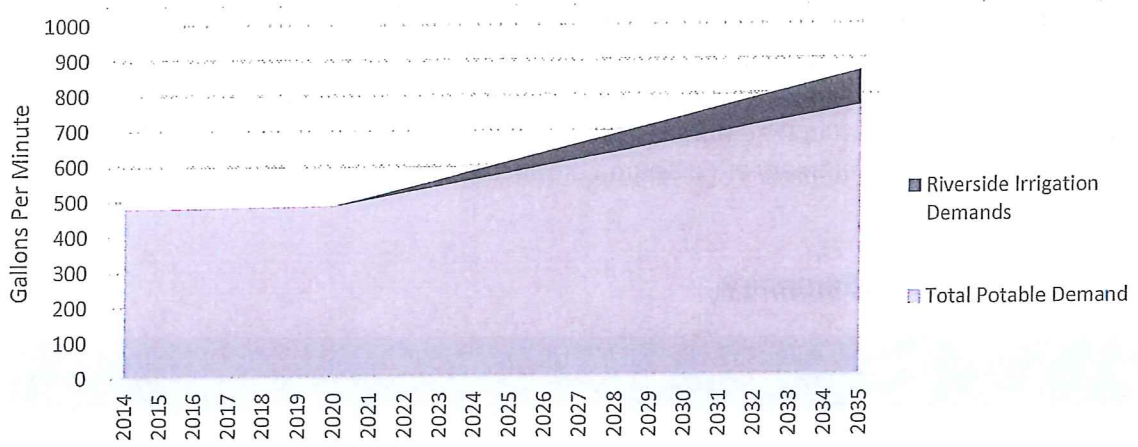
The Newberg Dundee Bypass is a large freeway area running through the proposed District. It is anticipated the space between the on/off ramps and the road is irrigated. This space is anticipated

to be approximately 10% of the land area in the bypass land use designation. It is unlikely that ODOT will pay for water for irrigation of this area.

Future Water Demand including Riverside District Potential Irrigation Demand

Projected future water demands for the City, including the Riverside District, are summarized in **Figure 1**. Projected water demands shown are for the Maximum Day Demand (MDD) and potential irrigation water demands in the Riverside District are shown.

Figure 1
2035 Projected MDD Water Demand Summary



Note: This assumes that the 970 EDUs are built out over 15 years starting in 2021. This could happen faster or slower.

Potential Revenue Associated with Riverside District Irrigation Supply

The City has several classes of water rates. Up to 667 cubic feet is included in the base charge. Between 667 and 1,334 cubic feet is $0.028435 per cubic foot, and above 1,334 is $0.034122 per cubic foot. For simplicity in this analysis, it is assumed 50% of irrigation water is between 667 and 1,334 cubic feet and the rest is either below the base rate, or non-billable. This would occur for a 3-month period of July-September annually. If irrigation water is charged at the same rates as potable water, this equates to an irrigation revenue of **$25,273** per year for 144,527 gpd at build-out of the Riverside District.

Estimated Cost for Separate Riverside District Irrigation Distribution System

While the costs for the installation of a separate recycled or non-potable water distribution system in the Riverside District would likely be born by developers, the costs associated with the addition of this pipe system should be considered in evaluating the overall cost-effectiveness of the system.

The estimated cost of a new 6" C900 PVC pipeline distribution system along arterial streets identified in the Riverside District Master Plan is approximately $2 Million. This assumes the pipelines would be constructed along with other underground utilities. This cost doesn't include costs for extension to individual lots from the arterial streets, or meters.

Impact of Potential Riverside District Irrigation Demand on the City's Drinking Water Supply

The City currently operates ten wells to meet its total water system demands. Total supply source production capacity is the sum of the production capacities of all operational well pumps. The City's wells have a total production capacity of approximately 857 gpm. Firm capacity for the City's water system is defined as the total supply source production capacity available with the largest well out of service. Well 13 has the largest pumping capacity at 200 gpm, followed by Well 8 at 130 gpm. Due to water right limitations, Well 13 is a seasonal summer well and should be excluded from firm capacity calculations in the summer as well as firm and total capacities in the winter. Well 8 is the largest well remaining if Well 13 is not in use and should be excluded from firm capacity in the winter but not in the summer. Firm capacity is 657 gpm in summer and 527 gpm in winter. **Table 5** provides a summary of well pump production capacity for the City.

Table 5
Well Pump Production Summary

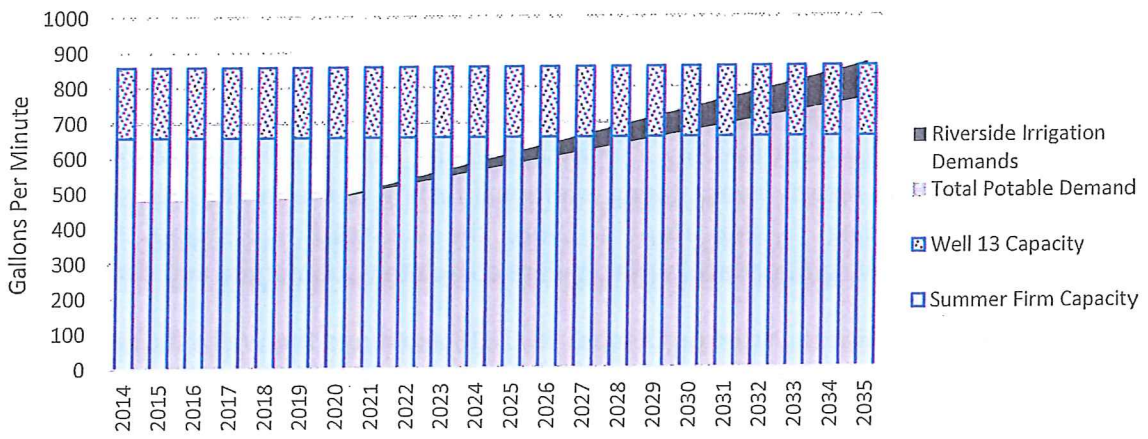
Well	Site	Capacity (gpm)	Water Right (gpm)	Water Right Excess (gpm)	Zones Served
1	Spring Well Site	53	100	47	All Zones
2	Spring Well Site	54	100	46	All Zones
3	Deep Well Site	35	80	45	Lower Zone
4	Abandoned	--	115	115	None
5	Dundee Hills – Leased Well	100	135	35	Lower Zone
6	Dundee Hills – Leased Well	100	135	35	Lower Zone
7	Spring Well Site	80	148	68	All Zones
8	Spring Well Site	130			All Zones
9	First Street Well Site	55	799	564	Lower Zone
10	Alder Street Well Site	50			Lower Zone
13	Spring Well Site[1]	200	450	250	All Zones
	Total Supply Source Production Capacity	857	2062	1205	All Zones
	Total Firm Supply Source Production Capacity (Summer)[2]	657	--	--	All Zones
	Total Firm Supply Source Production Capacity (Winter)[3]	527	--	--	All Zones

Source: City of Dundee WSMP, Table 2-1, and Table A-1
Notes:
[1] Capacity of Well 13 based upon production rates established during Summer 2018.
[2] Total firm capacity for the City in summer is equal to total production capacity with Well 13 out of service.
[3] Total firm capacity for the City in winter is equal to total production capacity with Wells 8 & 13 out of service.
Additional water rights aver exist for undeveloped sources at springs (totaling 315 gpm), Otter/Harvey Creek (112 gpm), and the Willamette River (1795 gpm)

Figure 2 provides an overlay of the City's current total & firm supply source production capacity with its projected MDD (system potable water demand plus Riverside District irrigation demands). By Year 2027, projected total MDD outpaces summer firm capacity (capacity with the largest well out-of-service) for the City, and by 2029, potable water MDD outpaces summer firm capacity. Based on previously stated assumptions, within the next 10 years, the City will need to find additional supply sources or other means for offsetting projected water demands to supply MDD.

As shown in **Figure 2**, the potential supply of recycled or non-potable water to the Riverside District does not have significant impact on the timing of the need for additional water supply. However, it could potentially provide some relief when considering the total system capacity of the current wells once the Riverside District is fully developed.

Figure 2
Existing Potable Water Supply Vs. Projected Maximum Day Demands



Notes: This assumes that the 970 EDUs are built out over 15 years starting in 2021. This could happen faster or slower. Current wells provide capacity for approximately 500 additional EDUs.

Timing and Triggers for System Expansion

Generally, when the firm capacity of a drinking water supply is at 90% of MDD, additional sources are needed. Planning for this should begin when firm capacity reaches 75% of MDD. Based on the information provided in the City's recently completed WSMP, the City is currently very close to, or has already surpassed, the 75% of MDD threshold. Therefore, it is recommended the City begin planning for system expansion very soon. This is especially true given the potential impact on drinking water demand associated with development of the Riverside District.

Near-Term Options to Augment or Offset Drinking Water Supply

As noted in the Introduction, the City is interested in evaluating the potential and cost-effectiveness of two potential options to help offset drinking water demands, including:

1. Rehabilitation or relocation of Well 4 for non-potable water (e.g., irrigation) supply to offset potable water supply requirements
2. Upgrading the WWTP to produce Class A recycled water that could be distributed to irrigation users to offset potable water supply requirements

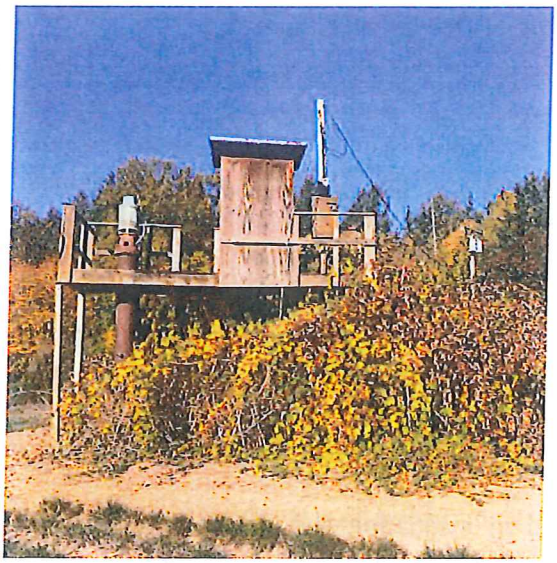
Options for Potential Use of Well #4

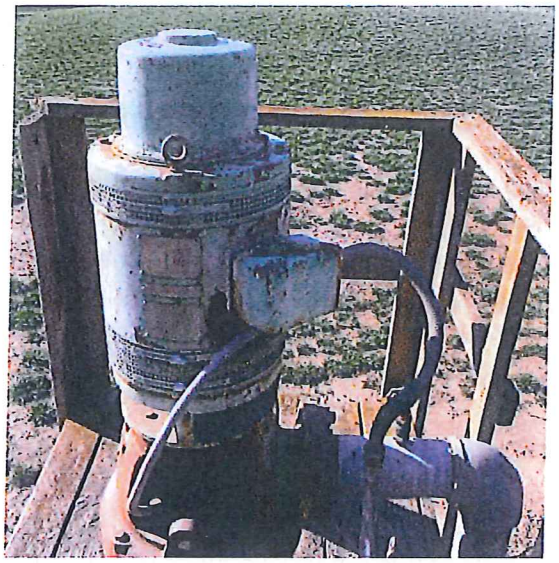
Well #4 has not be utilized by the City for many years but is a potential asset that could be rehabilitated to provide non-potable water to the Riverside District for irrigation. There is also potential for Well #4 to be relocated and used to augment the City's potable drinking water supply. This section includes a summary of the field condition assessment completed by Murraysmith and considerations for rehabilitating or relocating Well #4.

Well #4 Field Condition Assessment

As noted in Table 5, Well Pump Production Summary, Well 4 has been abandoned by the City. This well was originally drilled in 1972 near the Willamette River flood plain to draw water from the Willamette alluvium geological formation. Historical capacity was approximately 45 gpm. Well 4 has not been used by the City since the 1980s, when production rates fell off because of sanding issues and, possibly, ground settling problems. Additionally, the City reports the State of Oregon sent the City a letter addressing concerns about Well 4 being directly influenced by the nearby river, stating additional testing of the facility was needed. During widespread flooding of the area in 1996, the wellhead and pump, located approximately 15 feet above ground level surface, were completely submerged and damaged.

Murraysmith completed a visit to Well 4 on October 19, 2018 and found the Well 4 facility to be in poor condition. A complete rehabilitation of the Well 4 facility is required should the City desire to incorporate it back into its system in any manner.





Rehabilitation of Well 4 for Irrigation Supply

Recent reporting for Well 4 concluded with recommendations for the City to leave the facility abandoned (*City of Dundee - Riverbank Filtration Preliminary Feasibility Assessment, GSI, 2014)*. The technical memorandum highlighted several challenges associated with constructing and maintaining a well in the gravels and sands present in the subsurface of this area. The reporting also highlighted several challenges found with this aquifer: rapid drawdown in the test well drilled near the Well 4 site, shallow depth of water available, and only a weak correlation to the river levels; all are factors suggesting a well in this area may not be very productive.

A rehabilitation of Well 4 includes re-drilling the well and installing a new pump and motor. Additionally, a new well house structure is required.

Relocation of Well 4 to Augment Potable Water Supply

The existing water right the City holds for Well 4 may be relocated with the provision the well must be placed within 500 ft of the river. Within the previously noted reporting, GSI completed an analysis on the feasibility of moving Well 4 to a location that is more productive. GSI determined that locating a new Well 4 within the physical constraints noted in the water right was not likely to provide a consistently productive well for the same reasons Well 4 cannot remain in its current location.

Well #4 Recommendation

Based on the evaluation, the rehabilitation or relocation of Well #4 is anticipate to be costly. Costs for rehabilitating or relocating the well are estimated to be in the $1,000,000 range. Based on the evaluation, it would likely be better to utilize other groundwater rights available to the City to install a new drinking water well to augment potable water supply.

Class A Water Recycling

Class A Recycled Water is the highest quality recycled water produced in wastewater treatment plants and can be utilized for a broad range of allowed uses based on rules developed by the Oregon Department of Environmental Quality (DEQ). These allowed uses include irrigation of landscape areas, parks and other public spaces, industrial processes and many other uses consistent with the Riverside District Master Plan. With upgrades, the City's MBR WWTP can consistently produce Class A Recycled Water, which could then be distributed from the WWTP to the nearby Riverside District. **Table 6** summarizes the estimated costs for WWTP upgrades to produce Class A Recycled Water.

Table 6
WWTP Class A Recycled Water Upgrades Cost Summary

Item	Cost
WWTP Storage & Pumping Upgrades	$2,060,000
WWTP Piping Upgrades	$48,000
Total	$2,108,000

Source: City of Dundee Recycled Water Feasibility Study Appendix C

Cost-Benefit Analysis Associated with Well #4 and Class A Recycled Water

Table 7 summarizes the cost-benefit analysis conducted for providing irrigation or recycled water to the Riverside District. The payback period is based on the estimated annual revenue from the irrigation supply of $25,273.

It includes the cost of adding the third pipe system for the effluent reuse alternative. The cost of the third pipe system alone is approximated at $2,000,000. This assumes laying a 6" pipe down 12,000 feet of proposed arterial streets, and that it will be completed at the same time as the road construction, so redundant project items such as surface restoration were not included in the estimate.

When the cost of a system improvement is compared to the revenue generated, you get the number of years until payback.

Table 7
Cost Summary All Alternatives

Alternative	Estimated Capital Cost	Payback Period (Years)
Well #4 Rehabilitation	$3,000,000	119
Class A Recycled Water	$4,108,000	163

Notes:
[1] Based on current (2018) construction costs.
[2] Based upon estimated annual revenue of $25,273 from Riverside District irrigation supply.

The City has another non-cost related benefit analysis to consider. The installation of a recycled water system would be counter-productive when/if a water treatment plant is developed on the Willamette River. The City's water right has a provision that limits the withdrawal if the water discharged from the WWTP to the river is reduced. Since it appears the best long-term water supply solution for the City is construction of a new water treatment plant (or other long-term water supply source such as a regional connection with the City of Newberg), implementation of a large-scale water recycling program could then limit the City's Willamette River withdrawal for the future water treatment plant. As such, the size and demands for a water recycling program should be carefully considered if implemented by the City.

Conclusions and Recommendations

Based on the analysis presented in this technical memorandum, it does not appear the use of non-potable or recycled water for irrigation supply in the Riverside District is cost-effective or meets the long-term water supply needs of the City. In addition to the high cost of constructing the recycled water infrastructure, the reduction of WWTP discharge in support of the water recycling would serve to limit the withdrawal from the Willamette River for the new water treatment plant, which appears to be the best long-term drinking water supply solution for the City that has the maximum assurance of being able to supply the water needed for development of the Riverside District.

Based on these conclusions, Murraysmith recommends the City move forward with initial permitting and planning for the new water treatment plant, while continuing to discuss long-term water supply options with the Cities of Newberg and McMinnville. Ultimately, the City's water treatment plant and intake could become a useful element of a long-term regional water supply solution serving many communities in Yamhill County.

In the meantime, adding one or two new wells, continuing recent successes in reducing system leakage and unaccounted for water and promoting water conservation are highly encouraged to maximize capacity of the City's existing water supply sources. The City may also want to consider reconditioning several of the older groundwater wells to maintain proper operation and maximize withdrawal capacity.

Potential Next Steps

The City is now at a demand of approximately 75% of MDD, so there is time to implement a new water supply while continuing to grow. Murraysmith recommends the following steps be considered by the City:

1. **Construction the Falcon Crest Well.** The City has reserved the right on the recorded plat to access and install a new groundwater well at Falcon Crest Park to increase near term capacity. Nearby Wells 5 & 6 each have a capacity of approximately 100 gpm, and presumably a new well at Falcon Crest Park would provide a similar flow. Water rights transfer for this well will be a challenge due to differences in the existing and proposed points of diversion and may take extended periods of time for Oregon Water Resources Department to process or may require acquisition of a new water right entirely. The water rights transfer or acquisition process should begin as soon as possible to minimize delays of constructing this well. It should be noted that a long-term water source will still be required. An initial estimated cost of this well is $1,250,000-$1,500,00, but further refinement of costs can be provided if desired by the City.

2. **Reevaluate Existing Capacity and Rehabilitate Existing Wells:** There is potential that the capacity of the City's existing wells is not accurately measured and that some of the City's older wells need to be rehabilitated. To maximize groundwater production and better

quantify flows, Murraysmith recommends the City start rehabilitating wells 1,2,7 & 8, one well per year over the next 4 years. After this, the newer wells may be due for rehabilitation. Rehabilitation procedure varies by well but can consist of mechanical or chemical cleaning, screen replacement, pump replacement, and/or variable frequency Drive (VFD) installation. During rehabilitation, meters should be installed and well testing should be performed to see how the wells are currently performing. This would provide a more updated quantification of well capacity and help inform the timing for adding additional water supply sources (e.g. new water treatment plant) . A spreadsheet will be provided to the City to assist in evaluating demands of various development scenarios in the Riverside District against well capacity. Well rehabilitation costs vary dramatically based on the condition, depth, and capacity of an individual well. Individual well rehabilitation typically is approximately $150,000 - $200,000, but can increase if more than cleaning and meter installation is required.

3. **Regionalization and Willamette Water Treatment Plant:** The City of Newberg is currently considering regionalization activities that could be a mutually beneficial pathway for both communities. Newberg and Dundee are closely aligned communities that share resources, so this seems like a natural fit if regionalization of water supply ultimately becomes a reality in Yamhill county. Murraysmith is currently working with the City of Newberg on a Redundant Water Supply Evaluation that will allow us to keep the City informed on regionalization discussions. The City's Willamette River water right and the future construction of a new oversized intake could become useful if a future regional solution were to become viable.

4. **Willamette River Intake Permitting.** It could take as long as 4-5 years to obtain the necessary local, state and federal permits for a new Willamette River intake for a future water treatment plant to serve the City's long-term water supply needs. This does appear to be the best near-term water supply solution for the City given that the pace of Riverside District development is currently unknown and the timing of other regional solutions appear to be much longer term (e.g. the Newberg redundant water supply). As such, Murraysmith recommends the City begin the environmental permitting process as soon as possible. We would also recommend oversizing the new intake similar to the approach taken by the City of Wilsonville back in the 1990's that is now also being used to support the Willamette River Water Supply (WWSP) program serving Tualatin Valley Water District and the City of Hillsboro.

AGENDA REPORT

To: Mayor Russ and City Council

From: Rob Daykin, City Administrator

Date: January 10, 2019

Re: Parkway Committee DC Delegation

The Yamhill County Parkway Committee is arranging for local elected officials and other members to travel to Washington DC to meet with the Oregon congressional delegation, key committee staff, and US Department of Transportation officials to lobby for funding Bypass improvements. This is similar to the effort in which Mayor Crawford participated in 2013 for support of a TIGER (Transportation Investment Generating Economic Recovery) V discretionary grant for the Bypass project. Lobbyist Michelle Giguere arranged for a flight to Washington DC on February 27 for a cost of $466 round-trip. Congressman Peter Defazio, Oregon US House District 4, chairs the House Transportation and Infrastructure Committee. Giguere reported that there is significant interest in coming up with a bipartisan funding bill. Meetings with Representative Bonamici, District 1, and other DC officials would take place on February 28 and March 1. Other costs would include lodging and meals. Mayor Russ expressed an interest in participating and requests Council's authorization for the City to cover his travel expenses.

AGENDA REPORT

To: Mayor Russ and City Council

From: Rob Daykin, City Administrator

Date: January 10, 2019

Re: Outdoor Burning

Earlier this month, Councilor Adlong observed a significant amount of smoke from an open burn taking place in a residential area. Council Adlong located the source of the burn and approached the owner to let them know that burning was prohibited in the Dundee. The owner responded she checked with the "City" and felt she was in compliance with the rules. I reviewed with Chief Stock and he felt that type of burn would be prohibited; however, there appears to be a loophole in the attached regulation.[1] Recreational fires are allowed, although limited in size. Also, the burning of rubbish is prohibited with a recreation fire. Should there be additional restrictions to the regulation for the exempt fires, i.e. cooking fires and recreation fires. Should smoke from cooking fires and recreation fires trespassing to adjacent properties be considered a violation? Should a responsible person be in attendance at all times? Should any open burn cease if wind picks up to 15 mph or higher? Should the fine schedule be adjusted?

If Council desires to amend the outdoor burning regulation, a draft ordinance will be brought back to the next meeting for consideration.

[1] Chapter 8.12, the regulation on outdoor burning was adopted in 2010 since outdoor burning was determined to be a significant health hazard and nuisance to the citizens of Dundee. Also, an alternative to outdoor burning of vegetative materials such as garden waste, leaves, or woody trimmings are available to residents through the contracted yard debris removal program with Waste Management.

Chapter 8.12
OUTDOOR BURNING

Sections:

8.12.010 Definitions.

8.12.020 Outdoor burning prohibited – Exceptions.

8.12.030 Reimbursement of city costs.

8.12.040 Violation – Penalty.

Prior legislation: Ord. 440-2006.

8.12.010 Definitions.

As used in this chapter:

"Agricultural burning for disease or pest control" means the outdoor burning of waste infected or infested with a disease or pest for which the county extension service or Oregon Department of Agriculture identifies as having no other practical control.

"Cooking fire" means an outdoor fire used for pleasure, religious, ceremonial, cooking or similar purposes with the fire contained in a fireplace, barbecue grill, barbecue pit, or other similar enclosure specifically designed for outdoor recreation or cooking.

"Outdoor fire" means any outdoor fire within the ordinary definition and understanding of said words, and shall include, but not be limited to, the outdoor burning of grass, hay, straw, or similar material, as well as commercially available fuel, wood, tree limbs, branches, leaves, trimmings, or any other woody debris, and may also include burning other inappropriate material such as waste, debris, trash, rubbish or garbage, regardless of whether the fire is in the open or contained in a fire ring, burn barrel, outdoor fireplace, trash burner, incinerator, barbecue pit, fire pit or other similar burning container.

"Recreation fire" means an outdoor fire burning materials other than rubbish where the fuel being burned is not contained in an incinerator, outdoor fireplace, barbecue grill, barbecue pit or other enclosure and with a total fuel area of three feet or less in diameter and two feet or less in height for pleasure, religious, ceremonial, cooking or similar purposes.

"Rubbish" means materials ordinarily found in household garbage and trash, including but not limited to food packaging, cardboard and plastic food containers, as well as putrescible and nonputrescible materials.

8.12.020 Outdoor burning prohibited – Exceptions.

No person shall kindle, start, maintain or allow to be maintained an outdoor fire within the city limits of the city of Dundee with the following exceptions:

A. Cooking fires and recreation fires.

B. Fires set and maintained by the Dundee fire department for firefighting training or eliminating a fire hazard that cannot in the judgment of the city fire chief be removed or disposed of in any other practical manner.

C. Agricultural burning for disease or pest control when the fire is authorized in writing by the Department of Agriculture prior to such burning. A reasonable attempt shall be made to minimize smoke and/or odor caused by such burning so as to not create a nuisance on neighboring properties.

8.12.030 Reimbursement of city costs.

Any person who conducts an outdoor fire in violation of any state or city burning rule, including rules adopted by the city fire chief, must reimburse the city for all costs associated with a fire department response to that fire in accordance with the most recent reimbursement cost schedule adopted by the city fire chief.

8.12.040 Violation – Penalty.

A. A first-time conviction for a violation of this chapter is punishable by a fine of up to $50.00.

B. A second conviction for a violation of this chapter is punishable by a fine of up to $100.00.

C. A third conviction or any subsequent conviction for a violation of this chapter is punishable by a fine of up to $500.00.

AGENDA REPORT

To: Mayor Russ and City Council

From: Rob Daykin, City Administrator

Date: January 10, 2019

Re: Tourism Committee Appointment

The terms for members Ted Crawford, Jennifer Sitter, Nancy Ponzi, and Megan Carda on the Tourism Committee expired December 31, 2018. Also, Matt Daley resigned from the Tourism Committee, leaving an unexpired term. Terms are for two years, there is no limit on consecutive terms. In addition to appointment of an incumbent city councilor to serve as Chair, a minimum of three additional members must be residents of Dundee. Chair Crawford recommends the re-appointment of members whose terms expired. As of the date of this memo he has not found a suitable candidate for appointment of position vacated by the resignation of Matt Daley, but hopes to make a recommendation at the January 15 meeting.

If approved by the Council, the terms of the Tourism Committee including the recommended appointments in bold text are the following:

Ted Crawford, Chair	**December 31, 2020**	**City Councilor**
***Jennifer Sitter**	**December 31, 2020**	**Red Hills Market/Lofts**
Nancy Ponzi	**December 31, 2020**	**Dundee Bistro**
Megan Carda	**December 31, 2020**	**Lifestyle Properties**
*Ayla Holstein	December 31, 2019	Argyle Winery
Joseph Buck	December 31, 2019	Inn at Red Hills
Marque Wright	December 31, 2019	Purple Hands Winery
*Noel Johnson	December 31, 2019	Duck Pond Winery
Vacant	December 31, 2019	

*Dundee Non-Council Resident

Recommendation: Motion to approve the appointment of Ted Crawford, Jennifer Sitter, Nancy Ponzi, Megan Carda to a two-year term on the Tourism Committee, and appointment of _____ to complete the unexpired term ending December 31, 2019.

CITY of DUNDEE Oregon

The following additional pages were addendum items from the January 15, 2019 City Council Meeting.

CITY COUNCIL MEETING
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DRAFT

City of Dundee
City Council Meeting Minutes
January 2, 2019

Call to Order
Mayor David Russ called the meeting to order at 7:00 P.M.

Council and Staff Attendance
Present: Mayor David Russ; Council President Kristen Svicarovich; Councilors Storr Nelson, Tim Weaver, Patrick Kelly and Ted Crawford. Excused Absence: Councilor Jeannette Adlong. Staff members: Rob Daykin, City Administrator; Tim Ramis, City Attorney; John Stock, Fire Chief; Melody Osborne, Administrative Assistant; and Melissa Lemen, Administrative Assistant.

Public Attendance
Tim Svenson, Yamhill County Sheriff; Patti Sauers, YCOM Executive Director; and Ryan Pasquarella, CPA, Grove, Mueller & Swank, P.C.

Oath of Office Administered
City Administrator Daykin administered the Oath of Office to re-elected Mayor, David Russ, re-elected City Councilors Storr Nelson and Ted Crawford, and newly elected City Councilor, Patrick Kelly.

Councilor Kristen Svicarovich made **a motion** to nominate Councilor Tim Weaver for the position of Council President, which was seconded by Councilor Storr Nelson. **The motion** passed unanimously.

DRAFT

Agenda Changes
None.

Public Comment
None.

Presentations
Ryan Pasquarella, CPA – Annual Audit
C.A. Daykin provided Council members with additional financial analysis addendum materials for their agenda packets from Ryan Pasquarella, CPA, Grove, Mueller & Swank, P.C. Pasquarella introduced himself and explained that they were contracted to perform the independent audit for the City of Dundee for the year ended June 30, 2018. He explained the audit process and what his role is in assisting the City. Pasquarella explained that included in his role is to be available to C.A. Daykin and to the other employees throughout the year to answer financial reporting questions as they arise. Detailed discussion ensued regarding the annual auditing process of the City financial records. Pasquarella explained that a sample of transactions are selected, reviewed and analyzed in detail, though not 100% of City transactions are reviewed; this sampling meets the audit requirements. He discussed that the opinion provided on the Annual Financial Statements provide reasonable assurance that there are no material misstatements within the financial statements.

M. Russ inquired about whether the auditors scan the general ledger for anomalous items. Pasquarella explained that one of the reports that they receive shows every transaction that the

City has recorded for the year; they do review this for any transactions that they feel don't look right or are out of place. Examples were discussed and he indicated that sometimes this review leads to adjustments being made to the numbers before the financial statements are prepared.

Pasquarella discussed the Annual Financial Report. He reviewed and discussed the Table of Contents. He pointed out that the Management's Discussion and Analysis on pages 4-9 of the report provides a good overview of what happened during the 2017-2018 fiscal year. Pasquarella pointed out that beginning on page 35 are the individual funds, an area of the report which should be familiar to Council; this is the fund level area where Council adopts the budget annually.

Pasquarella discussed that the City does report on a cash basis; the State of Oregon allows cash basis reporting. Of importance to Council, Pasquarella referenced the Long-Term Debt information on pages 24-25, which provided a brief summary of the City debt during the year. Discussion ensued and it was noted that page 25 also includes a schedule of what the City will need to pay moving forward with regard to debt. He discussed that there is a debt coverage ratio for one of the Wastewater loans which needs to be over 1.05%, which the City was just under for the year. Pasquarella explained that they were in contact with the lender (DEQ) regarding this and there were no concerns that the City missed it for the year given the very clear reasons; there were some additional expenses this year that hadn't happened in previous years. C.A. Daykin noted that this was due to the cycle of the removal of sludge. He explained that since it is not done on an annual basis there is not the annual consistent expense; the larger expense will only periodically appear. Pasquarella pointed out that the coverage ratio for the loan will likely be met next year.

Pasquarella discussed the information provided with regard to the Pension Plan beginning on page 26 of the report. He pointed out that at June 30, 2018; the City reported a net pension liability of $926,312, which is the City's portion of the PERS liability for that given date. Pasquarella explained that this figure represents the present value of all future payments that the City is required to make. He discussed that moving forward the City's PERS contribution rates will continue to increase.

Pasquarella provided detailed discussion with regard to capitol assets and maintaining historical records of them as well as reporting a finding in the annual financial report document related to that. Though these have been reported over the past four years, Pasquarella advised that this reporting is no longer required. Additional discussion ensued and it was noted that though there used to be a finding in this document, it will no longer be included and will be reported as necessary.

Pasquarella informed that Grove, Mueller & Swank, P.C. feel that the financial statements are free from material misstatement, and that they do represent what the City did for the fiscal year ended June 30, 2018. There were noted to be no additional findings. Additional discussion ensued and C.A. Daykin discussed that a lot of the contracts the City has for loans from both the Federal government and the State agencies include a requirement that the City will report per generally accepted accounting principles (GAP); the City doesn't follow that process as we don't maintain a historical fixed asset which is a requirement. He explained that in recent years the City has been modifying the loan agreements at least with the State Oregon Transportation Infrastructure Bank; they are allowing the City to change the loan agreements so that at least the City is complying with those loan agreements because we are on cash basis accounting. The only remaining two outstanding loans would be DEQ (wastewater facility construction) and the USDA Rural Development loan (fire station construction).

C.A. Daykin discussed previously a prior auditor felt that the State may eventually require even the small entities to do modified accrual. Pasquarella informed that at this time this has not actively been pursued. It was noted that it would take quite a bit of effort and money for the City to switch over to that, specifically with regard to the historical capital asset records as well as increased audit fees. C.A. Daykin discussed that he recently spoke with another small City who is reporting on an accrual system, though they are going to be changing to cash; due to the additional requirements and costs. Pasquarella pointed out that the State of Oregon is satisfied with the modified cash system at this point.

Pasquarella briefly discussed the three pages of financial analysis materials provided. He explained that these funds are reviewed to see if there is anything of concern as far as auditors or the Council is concerned. He discussed that he believes the General Fund is meeting what the City Council is wanting as far as how the budgeting happens. Additional discussion ensued. This fund was noted to be growing 5-8% annually, with no significant changes over the past 2-3 years.

Pasquarella pointed out the significant fund balance decrease between 2017 and 2018 with regard to the Water Fund; the cash carryover decreased due to a new 10 inch water main to replace an undersized and failing line along Highway 99W. He discussed the importance of continuing to build up that money going forward. Additional discussion ensued. Pasquarella discussed that there was a similar effect in the Sewer Fund as well; though there were different reasons that the money was spent. There was noted to be an 18% decrease in the carryover cash from 2017 to 2018. This decrease was noted to be related to the previously discussed accumulation of sludge. Going forward hopefully this fund balance will increase once again. Pasquarella discussed that within the Sewer Capital this year the insurance recovery revenue was offset by expenditures that the City had to fix the issues. He noted that the Sewer Fund's debt coverage ratio was below 2.0 due to the fact that there is a lot of debt within that fund due to the recent debt that was taken out. Though this is not ideal, it is more of a cyclical issue; the sewer debt will be paid off and that ratio will increase.

C. Nelson inquired as to why the City Sewer Fund operating income decreased from 2017 to 2018. C.A. Daykin discussed that operating income is the net difference between the service fees and the outgoing operating expenses. He explained that during the last fiscal year there was a huge operating expense, close to $100,000, to remove the sludge which accounts for this difference. Additional detailed discussion ensued.

With regard to the Waste Water Treatment Plant loan, C. Crawford inquired as to what the term of the $9.7 million loan is. C.A. Daykin informed that it was a 20 year loan; there are about 14-15 more years remaining on the loan.

Employee Recognition

M. Russ invited Chief John Stock and Administrative Assistant, Melody Osborne, to come forward. He provided each with a 20-year continuous service recognition certificate, along with an accompanying gift card, and thanked them for their years of service to the City.

Consent Agenda

A motion was made and seconded to approve Consent Agenda Item 8.1 City Council Minutes, December 18, 2018. **The motion** passed unanimously.

Old Business

Yamhill Communications Agency Proposal

Yamhill County Sheriff Tim Svenson, along with Patti Sauers, Executive Director, Yamhill Communications Agency (YCOM) introduced themselves to Council. C.A. Daykin discussed the reasons Sheriff Svenson and Patti Sauers are present at the meeting tonight, as detailed in the agenda report on page 13. Chief John Stock discussed that various County Fire Agencies have been discussing uniting services. He reviewed that Amity is currently signed on with McMinnville to do some administrative services; and once the Lafayette Fire Station is built, the McMinnville Fire Department is going to expand into there with 24 hour staffing to include an ambulance. Chief Stock discussed that Carlton is interested in doing something and Dayton has been vocal as well about doing a greater regional department. Chief Stock voiced support that Dundee should be looking at potential options as well. He supported initially getting back involved with these departments through dispatch services as a way to start working together more. He shared his belief that this option is a better fit for Dundee.

Chief Stock discussed that another issue facing the Department is the need for communication dollars. He explained that Dundee doesn't have radios to talk on the digital radio system being; the cost would be over $300,000 to upgrade equipment for the new 800MHz radio system when it is implemented by WCCCA. In contrast, Chief Stock discussed that the cost would be approximately $30,000 for radios to go full time with the Yamhill County Dispatch Center. M. Russ pointed out that it was mentioned in the memo that there would still be some need for Dundee to have the capability of communicating with TVF&R units on the digital 800MHz radio system. Chief Stock discussed that patching can be used to bring two different frequencies together; this can yield very successful results and could be one option. In addition, he explained that TVF&R does provide some form of mutual aid radios to their partners, which is how he feels that Dundee would pick up communications. Additional discussion ensued.

M. Russ inquired about cooperative work being done in Yamhill County with Washington and Marion counties, and how radio communication is accomplished with those efforts. Sheriff Svenson explained that presently they use the patch system through dispatch, which has been done for years with Newberg and Dundee. He discussed that they recently received a grant for their office to purchase some mobiles though, as Chief Stock explained, to reach the 800MHz frequency digital platform the cost is $5,000-$6,000 for a portable that can be carried and close to $8,000-$10,000 for a mobile in a vehicle; portables for Sheriff Svenson's staff were noted to cost roughly $800, with mobiles costing $2,000-$3,000. Sheriff Svenson explained that the communication and technology are essentially the same as the 800MHz. He recalled previous conversation county-wide where the county radio system has been referred to as old and outdated technology, though he described in detail the even greater difficulties and complexities that were experienced with communications previously. Sheriff Svenson explained that the old system was dismantled and built to the new present system, consisting of 9 towers, which utilizes the exact same technology that the Marion County Sheriff's office is currently operating on. Sheriff Svenson confirmed that the system is UHF. Conversation ensued and it was noted that Yamhill County has a unique geographical make-up with many hills and valleys. Sheriff Svenson pointed out that Yamhill County could not be covered with only 9 towers if it were to move to a digital 800MHz system; likely an additional 12-14 tower sites installed throughout the County would be required at a cost of approximately $300,000 to $400,000 per tower. He explained that in more urban areas, such as Portland and most of Washington County, there are many more tower sites in place to operate off of in order for their system to operate effectively. Discussion ensued and Sheriff Svenson pointed out that the taller the communication tower, and the greater the distance of the signal, the more increased possibility there is of shortfalls within the area. With regard to the YCOM 450 MHz system, he explained that they needed to go to more of a simulcast system to allow for all of the tower sites to come up at the same time to get the greatest coverage. He

discussed the recent issues in a part of the County with regard to communications with the fire paging system; this issue was resolved by changing the location of a nearby tower and equipment which allowed the signal to transmit to them more effectively. Sheriff Svenson discussed that the County uses a company based system in Washington called ADCOM, which is the same company who designed the Marion County system. ADCOM was noted to be responsible for doing all of the surveys of the signal strength, complete all of the frequency work, and completed the study that YCOM went through approximately 12 years ago. Sheriff Svenson discussed that they are currently in the process of going through another survey of their entire radio system to look at what will be needed in the next 10, 15 and 20 years. Detailed discussion ensued and it was noted that ADCOM has bid the project, and another company (who has recently taken over the Marion County system) is also interested in potentially completing the work to provide an idea of what will be needed moving into the future.

Sheriff Svenson discussed that the County radio system is owned by Yamhill County; the management of the system, the tower sites, and the use and maintenance of the system all fall under the Sheriff's office through the County budget. He explained that the users of YCOM are operating off of that system and connect to that tower system through an agreement between YCOM and the County. He discussed that included in that Agreement is that money is transferred annually to the radio system budget in order to help maintain that system. The total dollar amount for that user fee is $270,300; though breaking this down, the individual user cost for the radio system is a very small dollar amount while providing complete access to the entire system. The users are simply required to maintain their own mobile and portable units, including purchasing and maintaining their units; the use of the system is all passed through with no actual user fees per device or many device restrictions as can be seen in other Counties. Sheriff Svenson discussed that the County pays approximately $120,000 a year to have a radio vendor that manages and monitors the system 24/7; it is web based and all IP, and if there are any issues they can remote into the system. He discussed that the radio system is designed right now to recalibrate itself once a day at a specific time to ensure it provides continuous accurate signals to users; this is an efficient way to maintain the radio system. M. Russ inquired, with regard to the user fees being collected, whether an equipment reserve is being built up with those dollars. Sheriff Svenson confirmed that and discussed that there are operating expenses, site operating expenses, and a reserve fund for future microwave build outs; approximately $50,000 to $75,000 is added to the reserve fund each year for projected replacement of the microwave over the next 10 years.

C. Crawford inquired as to whether the 450MHz can provide data communication in addition to voice to which Sheriff Svenson confirmed it to handle voice only. Discussion ensued and Sheriff Svenson explained that Verizon is used for data communications. He explained that First Net is through AT & T and is supposed to be first responder priority for data and phone, though an issue occurring right now in the State of Oregon is that AT & T is not the best cell phone provider for the majority of the State. It was note that though they do provide good service in the Portland Metro area and the I-5 corridor, service has not effective in most other areas of the State. Discussion ensued and Sheriff Svenson explained that a nationwide network for first responders is desired though this has not yet been accomplished in Oregon; this network would include the installation of approximately 200 new towers while utilizing the established ones as well. It was also noted that once First Net is able to cover Yamhill County as Verizon does now, the majority of law enforcement and public safety will likely switch over to First Net. Using First Net requires paying a flat monthly rate which includes cell coverage and whatever phone is desired; in an emergency situation, when all towers go down, First Net guarantees priority service over everybody else. Given this information, C. Crawford voiced that he cannot see enough advantages to switch to the digital 800MHz system. M. Russ noted his belief that T Mobil is set to expand the biggest 5G network in the country in Oregon sometime soon. Discussion ensued

regarding communications between Newberg-Dundee Police and the Dundee Fire Department. Patti Sauers explained that Newberg-Dundee Police is also involved in the multiagency traffic team, and YCOM is the dispatch agency who hosts all of their special details; they can switch channels to make the appropriate channel or patch as well. The process of patching through YCOM was described in detail.

Chief Stock pointed out that if Dundee Fire Department were to be on a different radio system that would be no different than it is now. He also discussed that at this time there is reliable communication with Newberg-Dundee Police, though this hasn't always been the case historically. M. Russ voiced the importance of reliable communication and that safety is provided for the community. C. Nelson discussed the importance of not compromising the quality of service just to meet a monetary goal, though voiced strong support of the YCOM option.

C. Svicarovich inquired about whether there would be any immediate capital infrastructure needs to bring the Dundee Fire Department online. Sheriff Svenson discussed that the radio system falls under the Sheriff's office which he manages; the addition of a new user doesn't put any burden on the system as it is. He discussed that they could run coverage maps through ADCOM to see what the existing coverage is of their system within Dundee Fire's District; district lines could be located to see what the coverage looks like and compare that to the current radio coverage. Sherriff Swenson discussed that there may be tower sites within Dundee that could potentially benefit the City as well as their radio service; future capital projects of increasing the towers could potentially be considered at some point, though that would not need to happen now in order to bring on an additional user for the radio system.

Sheriff Svenson explained that Sauers manages the dispatch center. It was discussed that there is a Board of five individuals that oversee YCOM; Sheriff Swenson is the Chair, one member is represented by the County, there is one representative from the City of McMinnville, one representative for all of the small Cities, and one representative who represents all of the small fire agencies. The Board was noted to meet once a month, if needed, though at least every two months. General business is conducted at their meetings. The addition of a new user to the dispatch center creates the need for additional research to look at the total call volumes; there is a lot more to bringing on a new user than simply adding them. It was noted that Dundee Fire Department radios could easily be programmed and be ready for use. The increase in call volume, including 911 calls and non-emergency calls, the increase to dispatching time and the time on the radio are all very specific to the dispatch center; they would need to look at their existing call load to see if these increases could be absorbed within the existing infrastructure and staff. Sheriff Svenson explained that if the City of Dundee were interested, YCOM would produce a particular number of talking points to determine what that project might look like. He discussed that based off of their most recent CAD upgrade that recently occurred, the next few months will be busy, so they first wanted to begin with a conversation with Council to find out the direction of the Council before a lot of time and effort is put into an analysis.

C. Weaver inquired about data use and whether that would be included. Sauers discussed that Fire Districts have several different technologies that they use to communicate with YCOM. She discussed in detail the different types of communications being used by some of the local Departments. She noted that the smaller fire districts don't carry mobiles in their vehicles; however, the CAD system that she is using and the mobile product from that system is the same one that Dundee is on presently. She explained that it's highly configurable; out of the box the structure is the same until customizing the unit begins. She pointed out that their CAD system and that used in Washington County are nothing alike. Sauers explained that these differences would need to be assessed and evaluated; specific examples of some differences were discussed.

C.A. Daykin inquired about the Users Committee and their role. Sauers explained that there is a Police & Fire Users Group which began approximately twenty years ago and has evolved over time. She discussed that when the County took back the day-to-day management and ownership of the radio system, it really became a Radio & User Implementation Group. The group was noted to meet once a month or every other month. Sauers discussed that she hosts the group which is led by Chair Lieutenant Steve Wardin, a part-time employee of the Sheriff's office. Additional detailed discussion ensued and Sauers explained that the Committee discusses new procedures to be implemented, including obtaining Committee consensus when needed; there are times when decision points are made at the User Group level. Sauers explained that Chief Stock or one of his Chief Officers would always be welcome and encouraged to come forward with any concerns or questions at any time. She also discussed in detail the Policy Board and the differences between this group and the Committee level; the Policy Board is the business of the organization and the major projects. Discussion ensued and Sauers noted that she attends Fire Defense Board several times a year and is a Committee member on the Ambulance Service Area Committee for Yamhill County.

C.A. Daykin discussed that the present arrangement of contracting with the City of Newberg where they have their own dispatch center; fire calls are transferred to Washington County and then routed back to Dundee. He inquired about the dispatch process if the City were to move to YCOM, especially given the fact that police services for Dundee are provided through the City of Newberg. Sheriff Svenson discussed that presently Dundee's 911 calls are routed through Newberg's Dispatch Center; fire calls are routed up to Washington County, who then handles the call and dispatches appropriately, while police calls are routed out depending upon the location of the caller. He discussed that part of the conversation moving forward with transferring dispatching services from Washington County/TVF&R and through the City of Newberg to Yamhill County would be the determination of where the 911 call will be answered and how to best route the calls for services. Discussion ensued and Sheriff Svenson explained that this is a much larger conversation which at some point would need to include the City of Newberg. The complexities of the issue of who would take priority of the 911 calls with law enforcement services being with Newberg and fire possibly going to the county were reviewed. Detailed discussion ensued and Sheriff Svenson explained that if they were dispatching for the City of Dundee ideally they would want to have the 911 calls coming into their center first as that is how services could be provided the quickest. Different scenarios for routing the 911 calls were discussed. C.A. Daykin inquired as to how the issue of TVF&R managing the ambulance service area for Dundee would be impacted in terms of how the calls are received. Sauers discussed that her thought is that it makes sense for that 911 call to come to YCOM; she would dispatch the first responder agency and then call for the ambulance. She explained that if the call continued to go to Newberg it would be transferred twice, which inserts a delay in the call. Detailed discussion ensued.

Sauers discussed that customer care is very important to their organization. She explained that YCOM has many years of answering 911 calls with 95% of calls answered within 10 seconds and and over 98% of calls are answered within 15 seconds. Sauers again discussed the importance of looking at the potential impacts of potentially bringing Dundee onto their system (if there is interest in doing so) so that these can be addressed. Sheriff Svenson discussed that ultimately it is his responsibility is to make sure that public safety response is in place and it is also the Sheriff who designates where the 911 calls (dollars) go. He explained that traditionally in Yamhill County there has been a split for 911 fees that stems from an Agreement in 1994 which is the reason a conversation inclusive of all involved parties is necessary. Sheriff Swenson discussed the importance of the 911 call and ultimately the user on the other end; the help they need should

be provided in the quickest way possible. He voiced that he doesn't want politics to get in the way of who will be receiving that help; providing that service to the user is his priority.

C. Svicarovich inquired as to what the City of Dundee's involvement or commitment is at this time related to the addition of the large communication tower in Newberg. C.A. Daykin explained that the City does not have a legal commitment at this time; the original dispatch services contract with the City of Newberg goes back to when Dundee still had a police department. Over time this arrangement has been continued, even though police services are now contracted. Additional detailed discussion ensued and C.A. Daykin reviewed that recently he met with Police Chief Brian Casey and the Newberg City Manager to let them know that the conversation with YCOM is taking place, and that the City of Dundee might want to revisit the Police Services Contract and clean that up, though he noted that he didn't really get that deep into dispatch as there is too much that is unknown at this point in time.

A motion was made and seconded to request YCOM to prepare a proposal to provide emergency dispatch services for the Dundee Fire Department. **The motion** passed unanimously. Sheriff Swenson noted that it will likely be a couple of months before a proposal will be ready.

Fire Department Task Force

C.A. Daykin reviewed that this topic was raised by multiple Councilors last fall. He discussed, as outlined in his meeting agenda report on page 15, that previously a study was done that evaluated the operations of the Fire Department by an outside consultant; a report was compiled which had a number of recommendations, both for the long-term and the short-term. He explained that a Task Force was next appointed to look at these recommendations and bring back their specific recommendations of how to implement these to City Council. He pointed out that those members of the previous Task Force, for the most part, did not have a lot of expertise in fire services. C.A. Daykin discussed the importance of Council articulating the specific purpose for the committee, as well as the expectations, and appointing members that have the necessary qualifications to perform that task. Mayor Russ discussed that citizens who have attended meetings and have talked to him personally have expressed a concern of the continued viability of the Dundee Fire Department, including whether the City can continue to cover the costs, afford to expand as needed (and costs associated with increased personnel), as well as will an annexation be needed on the other side of the bypass. He also discussed the importance of evaluating the options of moving to YCOM or TVF&R, and the costs and benefits of each. C.A. Daykin pointed out that knowing what the present level of service is and if the City is providing the appropriate level of service is important information as well. M. Russ discussed that from what he knows about expansion, the City will have a drop in quality of service during the growth phase; evaluating that potential issue and discussing concerns and solutions will be necessary. C.A. Daykin discussed that the way the level of service has been measured in the past was the length of time it takes to respond to calls. C.A. Daykin acknowledged M. Russ' concerns, though discussed that if in fact finding, evaluating and presenting the options are what is needed, he explained his belief that City Staff would complete that work; once the options and choices are known, potentially getting into the political process of determining what is acceptable to the community would be important if more resources will be requested or annexation is being considered, etc. M. Russ voiced support of Staff gathering information and noted that he feels political pressure to create a committee, though this may not be necessary until the appropriate information is available. C. Svicarovich voiced that she feels pressure that a committee be formed as well; citizens desire to be engaged in the process, though she supported that this should happen at the appropriate time.

C. Weaver inquired about McMinnville fire services and Chief Stock confirmed that McMinnville has a strong desire to expand fire services into the Lafayette Fire District. Chief Stock confirmed that there have been concerns voiced in McMinnville, Amity, Carlton, Lafayette

and Dayton. Additionally, he explained that McMinnville had drafted a document to takeover administrative duties of Sheridan Fire District; less than 24 hours later they pulled out and decided to go another direction. C. Weaver voiced support of being aware of what other organizations are contemplating, and whether Dundee is or should be a part of that conversation; it is his belief that the City needs to discuss where Dundee Fire can develop with more development coming. He voiced support of a committee and that public input will be needed; this would be beneficial for providing an information source for Council and an information source for Staff to be able to provide information to citizens. Additional discussion ensued and C. Weaver pointed out that the fire department needs are expanding constantly. He voiced support of exploring TVF&R as a potential option along with YCOM, while also determining what Dundee's actual needs will be.

Discussion ensued with regard to the potential structure of the Committee, as well as the amount and frequency of meetings. C. Crawford voiced support that regular monthly meetings would likely be most beneficial. Conversation ensued and C. Crawford pointed out the importance of determining the viability of the City funding a fire department given the trends, reduced volunteers and need for Staff, as well as increased costs of equipment. C. Nelson voiced his belief that with guidance Staff could look at projected growth and determine the costs to fund it; a Committee could potentially be formed once this information is more clearly known. The importance of looking to the future 10, 20 and 30 years was noted. Chief Stock discussed that a Needs Assessment Report was completed in 2006 which needs updated; this was noted to be a potential good starting point. Chief Stock suggested that going back to the consultant who completed the Study would be a good idea; measuring where the Fire Department is today against the results of study and their report should provide feedback for moving forward. Lengthy discussion ensued. The consensus of Council was to first review the 2006 Needs Assessment Report (copies to be provided to M. Russ and all City Councilors), and also ask C.A. Daykin to obtain a quote from the original consultant or other consultants to see what costs would be associated with an update. C.A. Daykin discussed that Chief Stock keeps apprised of the ongoing developments in the other parts of the County and will be reporting back to the City Council.

New Business

Tourism Video Production Agreement

M. Russ inquired as to whether C. Crawford has seen their work. C. Crawford confirmed that he has seen her work and explained that Molly Bailey had done previous work for the Tourism Committee; DNA Studios, LLC is her new company. C. Crawford pointed out that this is a good price. Additional discussion ensued and C. Crawford discussed his belief that the City of Newberg will step up and provide additional funds for more advertising, potentially even at the Portland International Airport. Video footage was noted to become the property of the City. Brief discussion ensued. **A motion** was made and seconded to authorize the city administrator to execute the Statement of Work agreement with DNA Studios, LLC. **The motion** passed unanimously.

Council Concerns and Committee Reports

C. Crawford inquired about the unsightly RV which has remained parked on Ninth Street. C.A. Daykin informed that he has not received any new information regarding the Agreements at the City of Newberg; the last information he received was that it had to go to their City Council though he is unsure whether this has yet been scheduled. C.A. Daykin indicated that he will try to obtain an update.

C. Svicarovich discussed concern about a second RV located on Seventh Street, parked parallel in someone's front year. It was suggested that the RV may have been parked in that location for the holidays, though it was noted to have been present for almost a month at this point. C.

Svicarovich pointed out that there is also a black trailer parked nearby. Though safety cones have been placed at either corner this was noted to be a potentially dangerous placement for a trailer given the traffic volumes in the area. The consensus of Council was to ask C.A. Daykin to contact the property owner regarding these discussed concerns, as well as ask the police to look at other locations that have unhitched trailers which have been parked on the street for an extended period of time. Additional discussion ensued.

C. Kelly inquired about the status of the previously discussed short-term vacation rentals. C. Crawford informed that he made a commitment to Council to provide some feedback from the Tourism Committee by February. He explained that the Tourism Committee will be discussing the topic at their January meeting; it is his hope that the members of the Tourism Committee who are also property managers, will work with and provide some suggestions to the Planning Commission. Additional discussion ensued and C. Crawford expressed concern that during the next economic downturn (and houses drop in price) that investors will want to purchase homes for vacation rentals.

Mayor's Report

None.

City Administrator's Report

C.A. Daykin discussed a recent email he sent Council regarding changing the training date from February 20 to March 20, 2019. He discussed that there is a good possibility that the hearing for the Riverside District Code update before the Planning Commission will be continued until the February 20 meeting. The COG was also noted to be having their annual dinner on the evening of February 20th as well, which created a conflict with the consultant. C.A. Daykin discussed that the two training meetings will be the first City Council meeting in March on March 5th, with the second training session on March 20, 2019. He informed that both meetings will be joint meetings with the Planning Commission starting at 6:00 pm at the Dundee Fire Station. Reminders will be sent out. C.A. Daykin discussed that there is no plan to have a regular Council business meeting on that first March date, so no agenda packet will be sent out.

C.A. Daykin informed that he and City Engineer Reid met with ODOT officials today. He noted that unfortunately ODOT Project Manager Alvin Shoblom was sick and unable to attend the meeting; C.A. Daykin was therefore unable to follow up with him on a number of questions. He discussed details from the meeting regarding the progress they are making trying to reach towards completing the project. He discussed that some of the main concerns deal with maintaining access and how to maintain access to businesses, especially during approximately a week when full depth reconstruction on the highway is taking place. One of the ODOT officials explained that they go through the same appraisal processes for this as they would for easement acquisition or right-of-way acquisition, an approximately 12-13 month process, for negotiating agreements to the impacted businesses. C.A. Daykin discussed that they indicated that it now looks like the main stay of the construction would be 2021 instead of 2020. C.A. Daykin indicated that he will be discussing this with Alvin Shoblom upon his return, and convey that the City is unhappy with the direction this is going which was also mentioned to the ODOT officials. Additional discussion ensued.

C.A. Daykin informed that he and C.E. Reid were able to meeting with Parametrix, ODOT's consultant who is dealing with design of the upgrades to the storm system as part of the highway improvements, and there were follow up discussions after that meeting; they are going to arrange to meet with Civil West . C.A. Daykin reviewed that the City was going to negotiate taking responsibility for maintenance of combining the City and the highway system as one system for these improvements, though it is unknown at this time how much will be the responsibility of the

City for maintenance of the water quality treatment facilities. He discussed that their hope is that they will be able to divert most of the City and highway water to ODOT's existing water quality facility. Additional detailed discussion ensued.

C.A. Daykin confirmed that he was unable to receive an update on the street lighting funding agreement with ODOT. C. Svicarovich discussed the importance of this being completed as soon as possible. C.A. Daykin discussed that Public Works monitors the traffic cones to ensure that they remain in place; C. Svicarovich suggested that the placement of something such as wine barrel planter boxes to provide more visual ambiance could replace the cones.

Public Comment

None.

The meeting was adjourned at 9:04 P.M.

_____
David Russ, Mayor

Attest:

_____
Rob Daykin, City Administrator/Recorder

City of Dundee Council Meeting January 15th, 2019

Dundee Future Water Use Evaluation

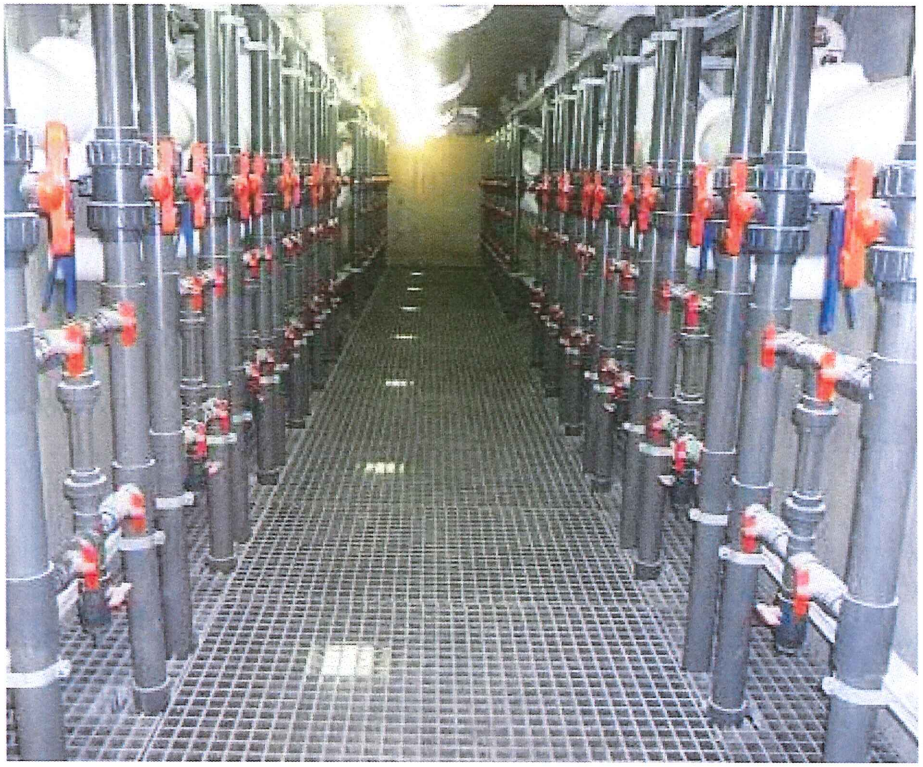
Presented by:
Preston Van Meter, P.E.
Lael Alderman, P.E.
Natalie Jennings, P.E.

murraysmith

Today's Agenda

1. Background
2. Demands
3. Existing Supply & Demand
4. Recycled Water
5. Well #4
6. New Well
7. Next Steps

Background & Purpose



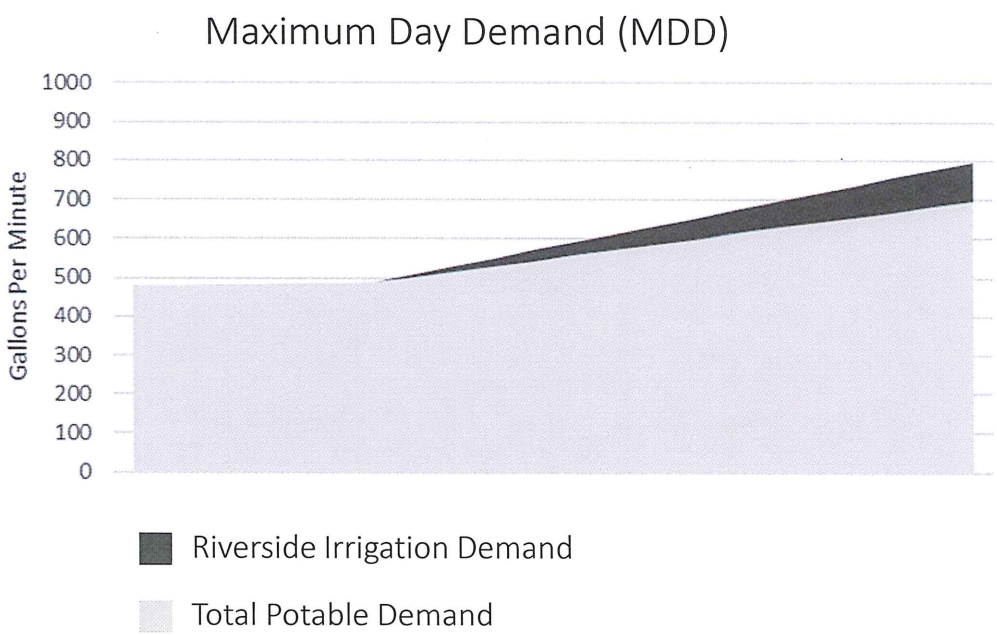
Background Information

- Dundee WWTP produces very high quality water with the membrane process
- That water has value!
- Previous RW Feasibility Study showed RW could help offset potable water demands

Follow-up Questions

1. Is using recycled water cost-effective?
2. Should recycled water infrastructure (e.g. "purple" pipe) be required as part of the Riverside District development?

Estimated Water Demand



Current

- Existing Population 3,330
- Exist. Avg. Day Demand: 248 gpm
- Exist. Max Day Demand: 479 gpm
- Infill MDD added: 36 gpm

Riverside District

- 970 EDUs (2,619 people)
- Varying gpcd based on lot size
- 2035 MDD added: 255 gpm
- Higher density = lower RW Demand

Water Supply Sources

Supply	Capacity
Total Supply Source Production Capacity	857 gpm
Summer Firm Capacity (1)	657 gpm
Winter Firm Capacity (2)	527 gpm
Total Well Water Rights	2062 gpm (3)
Willamette Water Right	1795 gpm (4,5)

Source: Table 5 in Future Water Use Evaluation

1) Summer firm capacity w/o Well 13
2) Winter firm capacity w/o Wells 8 & 13
3) Well water rights limited by declining aquifer to 857 GPM
4) Willamette River surface water right would need to be transferred
5) Willamette River withdrawal subject to curtailment when WWTP discharge not returned to river (e.g. water recycling)

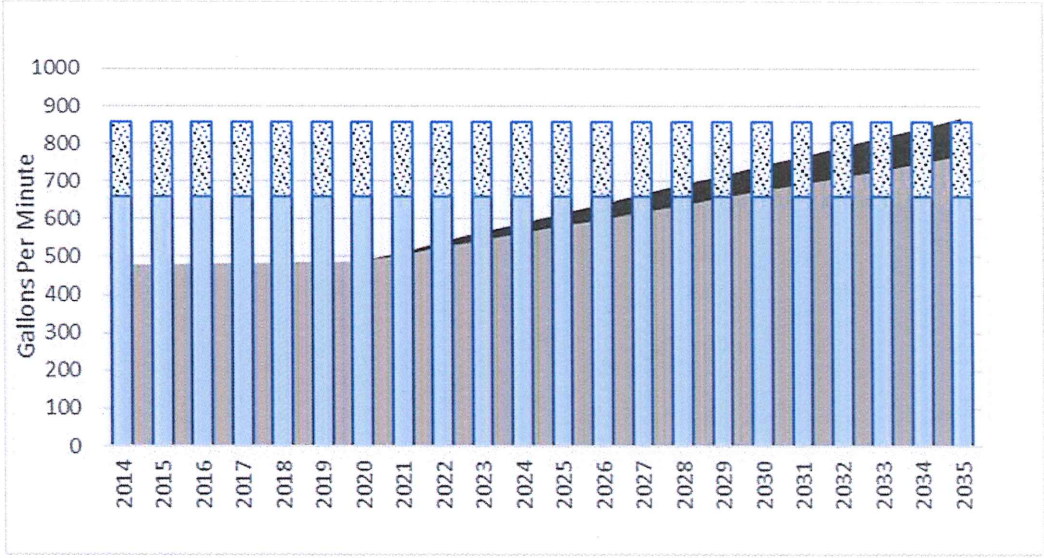
Water Supply Evaluation

Supply and Max Day Demand

Future MDD with Riverside 857 GPM

Add 500 EDUs to Summer Firm Capacity — 2027

Current MDD 479 GPM



- Riverside Irrigation Demands
- Total Potable Demand
- Well 13 Capacity
- Summer Firm Capacity

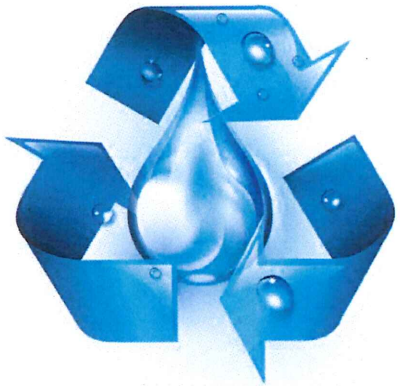
This assumes that the 970 EDUs are built out over 15 years starting in 2021. This could happen faster or slower.

Actual well capacity may affect timing. Some wells are not currently metered.

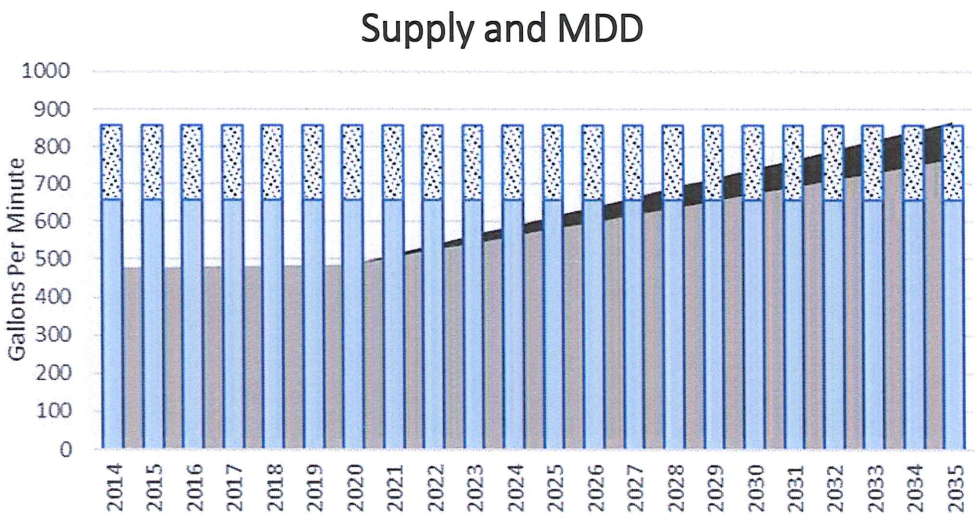
Recycled Water Cost-Benefit Analysis

Is using recycled water cost-effective?

- Good for summer irrigation potential
  - Generally limited to mid-June through September
  - Class A recommended for local RW uses
- Estimated Costs for Class A RW Infrastructure:
  - WWTP Upgrades: $2,108,000
  - RW Distribution System: $2,000,000 for 12,000 LF of pipelines
  - Total: $4,108,000
- Estimated Annual Revenue: $25,273/year
- Payback Period: 163 years

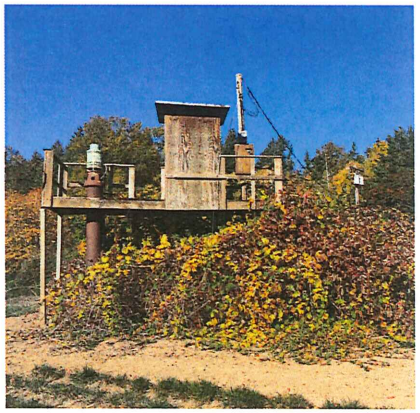


Recycled Water – Riverside RW Demands



- Estimated RW revenue = $25,273
- Higher density = reduced irrigation demand
- Commercial/Industrial demands unknown
- Est. payback period = 163 years

How about using Well #4?



Can it be used for non-potable supply?

- Abandoned for many years, poor condition, sandy soils/caved in
- Surface water connectivity (treat)
- Upgrades for Well #4 NPW:
  - Well Upgrades: $1,000,000
  - NPW Distribution System: $2,000,000
  - Total Infrastructure Costs: $3,000,000
- Est. Annual Revenue: $25,273 per year
- Payback Period: drops to 119 years
- Conclusion: Better put in new well than use Well #4 for NPW system

Conclusions on Recycled Water and Non-potable Water Supply options for Riverside District

Previous RW Feasibility Study determined it is possible for RW to be part of the solution.

The key questions for the Future Water Use Evaluation:

1. **Is using RW cost-effective?**

   The use of recycled or non-potable water is not cost-effective.

2. **Should RW infrastructure be required as part of the Riverside District Development?**

   It would be more cost effective to use potential RW infrastructure investments toward expansion of the City's potable water supply (e.g. new Water Treatment Plant)

1. Construct Falcon Crest Park Well
2. Maximize Existing Well Supply
3. Begin planning for new Water Treatment Plant
3. Regionalization

1. Construct Well in Falcon Crest Park

- New well on platted lot in Falcon Crest Park with power available
- Est. Cost: $1.25M - $1.50M
- Will have complicated water right transfer/acquisition
- Capacity ~100 gpm satisfies growth for limited period of time

2. Maximize Existing System Capacity

- Wells
  - Exist. Well rehab: $150,000-$200,000 per well
  - Could realize full water rights available
  - Install flow meters
  - Verify capacity
  - Recommend rehab one well per year starting with Wells 1, 2, 7 and 8
- Continue to repair leaks in distribution system
- Get every ounce of water you can out of existing system

3. Begin Planning for New Water Treatment Plant

- Est. Build-out of Riverside District shows exceeding firm water supply capacity by 2027
- Current supply provides for approx. 500 additional EDUs
  - Riverside District: ~970 dwelling units + City Infill
- Recommend the City begin planning for new Water Treatment Plant
  - Identify intake location and transfer water right (if required)
  - Develop WTP conceptual plan
  - Begin river intake permitting process (3-5 years)

4. Keep an Eye on Regionalization

- Newberg Redundant Water Supply Study (Murraysmith)
- Greater Yamhill County regionalization (McMinnville)
- The City's Willamette River surface water right has value!

Q&A

murraysmith

Thank you!