

COLUMBIA COUNTY INDUSTRIAL LAND INVENTORY PROJECT

APPENDIX C

*Public Utility Infrastructure
Analysis*

Dated

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Project Number

2210231.00



MACKENZIE
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UTILITY INFRASTRUCTURE REVIEW

Mackenzie civil engineers reviewed utility information provided by the local jurisdictions and service providers and documented the availability and sizes of the public water, sanitary sewer, and storm systems.

The public utility systems were evaluated and scored for their ability to serve industrial development at the inventory sites. The table below summarizes the information that Mackenzie reviewed for the Task 3 utility analysis. The utility evaluations were then used as part of the site tiering criteria.

Utility System Research

The utility information for this study included master plans or other plan documents in addition to the GIS data provided by jurisdictions and service providers. In general, the publicly available information for the inventory site utilities provided information on the proximity of utility services to the inventory sites, utility pipe sizes, and for some sites the extent of known capacity deficiencies that would limit service to the site. Additionally, we reviewed specific utility systems with City staff when documented information was absent or incomplete.

Table 1: Utility Information

JURISDICTION OR UTILITY PROVIDER	UTILITY INFORMATION REVIEWED FOR TASK 3
City of Columbia City	Master Plan Documents
City of Rainier	Phone Conversation with Public Works Foreman
City of Scappoose	Master Plan Documents
City of St. Helens	Online GIS and Master Plan Documents
City of Vernonia	Online GIS

Utility System Summary

Mackenzie compiled information about the public utilities, including: proximity to the site, existing utility size (typically pipe diameter), presence of known downstream deficiencies or capacity issues, and other notes where applicable.

The collected information is used to determine the utility ratings which are then used as part of the site tiering criteria, as described in the main study report. The following tables summarize our findings of the utility infrastructure at the study sites.

Site ID	Site Address (if available)	Water					
		Grade	Frontage	Size	Distance	Downstream	Notes
1	27994 DIKE Road RAINIER, OR 97048	C	Lowe Road Dike Road	N/A	N/A	N/A	No water north of Young Road
2		C	Barton Road	N/A	N/A	N/A	No water north of Young Road
3	76579 BARTON Road RAINIER, OR 97048	C	Dike Road Barton Road	N/A	N/A	N/A	No water north of Young Road
4		C	Barton Road	N/A	N/A	N/A	No water north of Young Road
5		C	Barton Road	N/A	N/A	N/A	No water north of Young Road
6	76369 EGE Road RAINIER, OR 97048	C	Ege Road	N/A	N/A	N/A	No water north of Young Road
7	76277 YOUNG Road RAINIER, OR 97048	C	Dike Road	12"	1450'	none	
8		A	Dike Road	12"	0	none	~75+ lb/in ² pressure
9		A	Unnamed Access from Dike Road	12"	350'	none	~75+ lb/in ² pressure
10	15165 AIRPORT WAY VERNONIA, OR 97064	C	N/A	N/A	N/A	N/A	This area is on well water
11		C	Knott Street	N/A	N/A	Over capacity	No water in Knott frontage. All water in the area has deficient flow and the entire area would need upgraded to support any industrial development.
12		C	N/A	N/A	N/A		Outside City Limits; water stub located 1/2 mile from site
13	2305 SECOND ST COLUMBIA CITY, OR 97018	A	E Street	10"	0'	none	Looped waterline within property
14		A	Old Portland Road	16"	100'	N/A	
15		B	McNulty Gable Street	8" 16"	250' 700'	N/A	Would likely need to extend service from Gable since McNulty line wouldn't be looped

Site ID	Site Address (if available)	Sewer					
		Grade	Frontage	Size	Distance	Downstream	Notes
1	27994 DIKE Road RAINIER, OR 97048	C	Low Road Dike Road	N/A	N/A	N/A	No sewer north of Young Road
2		C	Barton Road	N/A	N/A	N/A	No sewer north of Young Road
3	76579 BARTON Road RAINIER, OR 97048	C	Dike Road Barton Road	N/A	N/A	N/A	No sewer north of Young Road
4		C	Barton Road	N/A	N/A	N/A	No sewer north of Young Road
5		C	Barton Road	N/A	N/A	N/A	No sewer north of Young Road
6	76369 EGE Road RAINIER, OR 97048	C	Ege Road	N/A	N/A	N/A	No sewer north of Young Road
7	76277 YOUNG Road RAINIER, OR 97048	C	Young Road	12"	1450'	none	
8		A	Dike Road	12"	0'	none	Public Works Foreman said the sewer line is on the east side of the railroad tracks
9		A	Dike Road	12"	350'	none	Public Works Foreman said the sewer line is on the east side of the railroad tracks
10	15165 AIRPORT WAY VERNONIA, OR 97064	C	N/A	N/A	N/A	N/A	This area is on septic
11		C	Knott Street	N/A	N/A	Over capacity	No sewer in Knott frontage. All sewer in the area is over capacity and the entire area would need upgraded, including the pump station to support any industrial development.
12		C	N/A	N/A	N/A	N/A	Outside City Limits; sewer stub located 1/2 mile from site
13	2305 SECOND ST COLUMBIA CITY, OR 97018	A	E Street	8"	0'	N/A	Downstream pump station in 2nd Street
14		A	Rail spur line	15"	100'	N/A	Pipe size not provided in 2001 sewer study. New line would need to cross under rail line. Size determined from McNulty Industrial Park survey (2021)
15		B	Gable Road	Unk	1100'	N/A	Pipe size not provided in 2001 sewer study. Extension to Old Portland Road or Industrial Ave lines

Site ID	Site Address (if available)	Storm					
		Grade	Frontage	Size	Distance	Downstream	Notes
1	27994 DIKE Road RAINIER, OR 97048	A	Low Road Dike Road	N/A	N/A	N/A	Adjacent to Rinearson Slough
2		B	Barton Road	N/A	N/A	N/A	Slough is approximately 650' southwest of site
3	76579 BARTON Road RAINIER, OR 97048	C	Dike Road Barton Road	N/A	N/A	N/A	No storm in vicinity
4		C	Barton Road	N/A	N/A	N/A	No storm in vicinity
5		A	Barton Road	N/A	N/A	N/A	Adjacent to Rinearson Slough
6	76369 EGE Road RAINIER, OR 97048	C	Ege Road	N/A	N/A	N/A	No storm in vicinity
7	76277 YOUNG Road RAINIER, OR 97048	A	Young Road	N/A	N/A	N/A	Adjacent to Rinearson Slough
8		A	Dike Road	N/A	N/A	N/A	Adjacent to Rinearson Slough
9		A	Dike Road	N/A	N/A	N/A	Adjacent to Rinearson Slough
10	15165 AIRPORT WAY VERNONIA, OR 97064	B	N/A	N/A	N/A	N/A	500' to Nehalem River
11		B	Knott Street	N/A	N/A	N/A	Adjacent to Knickerson Creek
12		B	McBride Creek	N/A	0"	N/A	Adjacent to McBride Creek; potential downstream bottleneck
13	2305 SECOND ST COLUMBIA CITY, OR 97018	A	Columbia River	N/A	0'	N/A	Adjacent to Columbia River
14		B	Old Portland Road	N/A	900'	N/A	Discharge to wetlands / ponds south of Old Portland Road. Potential drainage restriction at PWRR spur line
15		B	Gable Road	42"	100'	N/A	1999 study: 2x 36" culverts to be upgraded to 2x 42" culverts. Discharge to McNulty Creek. Downstream capacity limitations (1999).

Site ID	Site Address (if available)	Water					
		Grade	Frontage	Size	Distance	Downstream	Notes
16	1645 RAILROAD AVE ST HELENS, OR 97051	A	Old Portland Road Railroad Street	16" 8"	100' onsite	N/A	Existing water network serving Armstrong facility
17	2305 SECOND ST COLUMBIA CITY, OR 97018	B	Railroad Street	8"	100'	N/A	Railroad 8" connects to 16" approx. 1200' northwest
18	2305 SECOND ST COLUMBIA CITY, OR 97018	B	Old Portland Road	12"	1200'	N/A	Extend water from Portland Road and down Hamlin. 8" line in Kaster is on other side of Milton Creek
19		B	Kaster Road Railroad Street	8" 8"	100' 100'	N/A	Kaster 8" is served by 6" network - potential supply limits Railroad 8" connects to 16" approx. 2000' northwest
20		C	Umatilla Street	6"	300'	N/A	12" main approximately 1750' north (Tualatin Street)
21	53787 WEST LANE Road SCAPPOOSE, OR 97056	A	W Lane Road	16"+	0'	none	
22		A	W Lane Road	16"+	0'	none	10-16" in Sky Way (deficient hydrant flagged)
23	53324 WEST LANE Road SCAPPOOSE, OR 97056	A	W Lane Road	16"+	0'	none	8" in Wagner Court (hydrant flagged as deficient)
24		A	Charles T Parker Way	12"	0'	none	
25		A	Charles T Parker Way	12"	0'	none	
26		A	W Lane Road	16"+	0'	none	
27	2305 SECOND ST COLUMBIA CITY, OR 97018	B	Wagner Court	8"	0'	deficient flow	10-12 ft/sec flow velocity; deficient hydrants
28		A	W Lane Road NE Crown Zellerbach Logging Road	16"+ 16"	0'	none	
29		A	(Future) Commerce Drive	18"	0'	N/A	Plat to record in Spring 2022 as part of an industrial subdivision
30		A	(Future) Commerce Drive	18"	0'	N/A	Plat to record in Spring 2022 as part of an industrial subdivision; 18" water available in (future) Aviation Court
31		B	(Future) Commerce Drive	18"	750'	N/A	Plat to record in Spring 2022 as part of an industrial subdivision
32	51380 DIKE Road SCAPPOOSE, OR 97056	B	Columbia Avenue	8"	1000'+	N/A	Outside City Limits
33	50843 DIKE Road SCAPPOOSE, OR 97056	C	N/A	N/A	N/A	N/A	No public water in vicinity; outside City/Report Limits

Site ID	Site Address (if available)	Sewer					
		Grade	Frontage	Size	Distance	Downstream	Notes
16	1645 RAILROAD AVE ST HELENS, OR 97051	A	Railroad Avenue	Unk	100'	N/A	Pipe size not provided in 2001 sewer study, shown as "future extension". Private pump station serves existing Armstrong facility
17	2305 SECOND ST COLUMBIA CITY, OR 97018	A	6th Street	Unk	100'	N/A	South Trunk pipe size not provided in 2001 sewer study. Potential need to extend 300 ft north to 6th Street sewer
18	2305 SECOND ST COLUMBIA CITY, OR 97018	A	7th Street	Unk	100'	N/A	South Trunk pipe size not provided in 2001 sewer study. Potential private pump station needed.
19		B	South Interceptor	30"	100'	N/A	South interceptor at north corner. Likely pump station needed for southwestern portion of site. Existing former Boise Cascade plant and treatment lagoons are adjacent.
20		A	South Interceptor	30"	100'	N/A	South interceptor at north edge. Existing former Boise Cascade plant and treatment lagoons are adjacent.
21	53787 WEST LANE Road SCAPPOOSE, OR 97056	C	N/A	N/A	N/A	N/A	No public sewer in vicinity
22		A	Sky Way Drive	10"	0'	none	
23	53324 WEST LANE Road SCAPPOOSE, OR 97056	A	Sky Way Drive	10"	0'	none	
24		A	Charles T Parker Way	8"	0'	none	8" gravity and 4" force main in Charles T Parker Way
25		A	Charles T Parker Way	8"	0'	none	8" gravity and 4" force main in Charles T Parker Way
26		A	Wagner Court	8"	0'	none	8" in Wagner at SE boundary; 4" force main along southern boundary; site cannot connect until annexed
27	2305 SECOND ST COLUMBIA CITY, OR 97018	A	Wagner Court	8"	0'	none	
28		A	NE Crown Zellerbach Logging Road	8"	0'	none	21" sewer available in a public easement along the eastern property boundary
29		A	(Future) Commerce Drive	12"	0'	N/A	Plat to record in Spring 2022 as part of an industrial subdivision
30		A	(Future) Commerce Drive	12"	0'	N/A	Plat to record in Spring 2022 as part of an industrial subdivision; 8" sewer available in (future) Aviation Court; pump station on site available
31		B	(Future) Commerce Drive	12"	750'	N/A	Plat to record in Spring 2022 as part of an industrial subdivision
32	51380 DIKE Road SCAPPOOSE, OR 97056	C	N/A	N/A	N/A	N/A	12" force main might be in vicinity; outside City/Report Limits
33	50843 DIKE Road SCAPPOOSE, OR 97056	C	N/A	N/A	N/A	N/A	No public sewer in vicinity; outside City/Report Limits

Site ID	Site Address (if available)	Storm					
		Grade	Frontage	Size	Distance	Downstream	Notes
16	1645 RAILROAD AVE ST HELENS, OR 97051	A	Multnomah Channel	N/A	100'	N/A	Existing industrial facility. Re-use existing assumed outfall(s) to Multnomah Channel and/or Milton Creek
17	2305 SECOND ST COLUMBIA CITY, OR 97018	B	Milton Creek	N/A	100'	N/A	Direct discharge to Milton Creek. No capacity issues noted at rail spur crossing (1999)
18	2305 SECOND ST COLUMBIA CITY, OR 97018	B	Milton Creek	N/A	100'	N/A	Direct discharge to Milton Creek. No capacity issues noted at downstream rail spur crossing (1999)
19		B	PWRR	54"	100'	N/A	1999 study: 48" pipe to be upgraded to 54" pipe with outfall to Multnomah Channel. Discharge ponds / wetlands on site. Connection to Multnomah Channel under rail spur.
20		A	East Street	54"	100'	N/A	1999 study: 48" pipe to be upgraded to 54" pipe with outfall to Multnomah Channel. Discharge ponds / wetlands on site. Connection to Multnomah Channel under rail spur.
21	53787 WEST LANE Road SCAPPOOSE, OR 97056	C	N/A	N/A	N/A	N/A	1998 Storm Master Plan shows no public storm drain in vicinity
22		C	N/A	N/A	N/A	N/A	1998 Storm Master Plan shows no public storm drain in vicinity
23	53324 WEST LANE Road SCAPPOOSE, OR 97056	C	N/A	N/A	N/A	N/A	1998 Storm Master Plan shows no public storm drain in vicinity
24		A	Charles T Parker Way	24"	0'	N/A	
25		A	Charles T Parker Way	24"	0'	N/A	
26		C	N/A	N/A	N/A	N/A	1998 Storm Master Plan shows no public storm drain in vicinity
27	2305 SECOND ST COLUMBIA CITY, OR 97018	A	Wagner Court	15"+	0'	N/A	
28		A	W Lane Road	12"	0'	N/A	36" storm available in a public easement along the eastern property boundary
29		A	(Future) Commerce Drive	24"	0'	N/A	Plat to record in Spring 2022 as part of an industrial subdivision
30		A	Commerce Drive	24"	0'	N/A	Plat to record in Spring 2022 as part of an industrial subdivision
31		A	Commerce Drive	24"	0'	N/A	Plat to record in Spring 2022 as part of an industrial subdivision
32	51380 DIKE Road SCAPPOOSE, OR 97056	C	N/A	N/A	N/A	N/A	1998 Storm Master Plan shows no public storm drain in vicinity
33	50843 DIKE Road SCAPPOOSE, OR 97056	C	N/A	N/A	N/A	N/A	1500' to unnamed channel