DESCHUTES COUNTY LANDFILL SITE REUSE EVALUATION

MAY 14, 2014



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For more information please contact:

Christine McKelvey, AIA, LEED AP Land Use Planner cmckelvey@mcknze.com

503.224.9560 n mcknze.com Portland, OR n Vancouver, WA n Seattle, WA



ncknze.com

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Deschutes County Landfill Site Analysis 5/2/14

I. PROJECT OVERVIEW

PROJECT PROCESS SUMMARY

Over the course of many years, Oregon State University has identified Bend as the ideal location for their expansion of their central Oregon campus, OSU Cascades. As enrollment growth has continued to increase, the University looked at opportunities to expand and in 2012 the Oregon University System endorsed OSU-Cascades' expansion to a four-year university. In 2013 the Oregon State Legislature approved capital funding that enabled the branch campus to establish it's own campus. The University has identified 56 acres of land in west Bend as the proposed location for the new campus with the recent purchase of an approximately 10.4 acre site at the intersection of SW Chandler Avenue and SW Century Drive as the first phase of the development. Purchase negotiations and extensive public master planning efforts have been ongoing on the adjacent 45 acres to the west (Refer to Figure 1 below-Phase 2 Campus Expansion). Through these efforts, the Deschutes Landfill Site (the subject site-Refer to Figure 1 below) has been identified as a possible location for future campus expansion and/or possible private development that would enhance the community and the forthcoming OSU Cascades campus.



As the economic conditions continue to revive in Central Oregon, Deschutes County Recently sought the assistance of Apex Companies, LLC (geoenvironmental engineers/consultants), Johnson Economics (Economist), and Mackenzie (Land Use Planners, Architects, Traffic and Civil engineers) to help determine the highest and best use of the site in conjunction with future market trends and the geoenvironmental conditions that affect the property value and development potential. The intent of this study is not to determine a specific development but rather to study the various use options, review the market conditions in terms of growing market sectors that might be appropriate uses on the site and look at those in comparison to the likely remediation costs associated with cleaning up the landfill site such that it is appropriate for development in the future.

The subject site is a former landfill property that is owned by Deschutes County. The site has extensive geoenvironmental challenges that are applicable to any future development on the property. The geoenvironmental data and analysis is further described in detail through the Apex environmental report, issued in conjunction with this report. In early 2014, Mackenzie began working hand in hand with Johnson Economics, Apex, and Deschutes County to develop three possible development scenarios for the subject site. All scenarios are intended to serve as an academic exercise in response to market trends in the area and are based on general planning practices in conjunction with the extreme geoenvironmental conditions on the site. It is important to note that private developers were not enlisted as a part of this effort and have not been consulted in any capacity that the consultant team is aware of.

EXISTING ZONING AND ALLOWED USES

The subject site is comprised of four tax lots totaling approximately 79 acres (refer to Figure 2). The majority of the site (approximately 72 acres) is contained in a rectangular configuration (with the exception of a triangle piece of property that belongs to the City of Bend, which dissects the County property). The larger areas of the site contain the extent of the landfill area; refer to Apex's report for extent of the landfill cells. An additional 7.12 acres +/- is under County ownership and under the same tax lot identification as the largest lot noted below. The 7.12 acres comprises the three skinny lots to the north of SW Simpson Avenue do not appear to have been used for any mining/landfill purposes in the past and are considered to be clean lands.

Figure 2. Tax Lot Map



The full extent of the County landfill property is currently zoned SM (Surface Mining Zone) as outlined in the Bend Code, Section 10-10.9B and as shown in Figure 3 below. The purpose of the Surface Mining Zone is to allow the extraction of surface mining materials needed by the community while protecting the health and safety of adjoining residents and users. Permitted uses are limited to those associated

with the extraction of materials, sand, gravel, and any other mineral or aggregate materials. Buildings/structures/caretakers residence is permitted in conjunction with the mining use. Conditional approved uses include landfills (with written tentative DEQ approval), utility facilities, hydroelectric facilities, and other related activities using materials primarily found on the site, such as concrete batching plants and mineral refining plants.

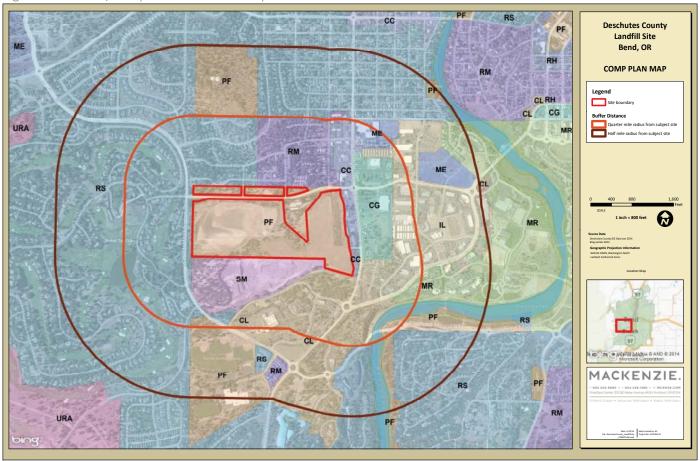
The full extent of the property is noted in the Bend General Plan (Comprehensive Plan) as PF (Public Facilities) as outlined in the Bend Code, Section 10-10.21C and as shown in Figure 4 below. The Public Facilities Zone is intended to provide area for buildings and facilities that are owned and operated by federal, state or local governments, public utilities, special districts, or non-profit organizations, and which are occupied to provide governmental or public services. This zone is also intended to provide for school sites, public park and recreational facilities, natural areas, trails, wetlands, and similar types of open space owned and managed by a local government or special district. Permitted uses in the PF Zone include public buildings, public parks, public play fields, publicly owned and operated community meeting halls/lodges, Elementary schools, public college or university and public parks and recreational uses described above. Conditional uses include middle/high schools, ball fields/sport complexes, county waste disposal/transfer sites, correctional facilities and park sites with outdoor amphitheater.

Figure 3. Bend Zoning Map



It is important to note that for the purposes of this study, the project team did not limit any proposed uses to those that would be permitted outright or as conditional uses in either the current zoning configuration (SM) or as identified in the general plan (PF). For the purposes of this study, the project team reviewed all possible uses that appear to be supported with the market conditions (Refer to the Economic study by Johnson Economics) that could bring the highest value to the property while being compatible with the surrounding existing and proposed future uses.

Figure 4. General/Comphrehesnive Plan Map



Over the course of this study, it was determined that highest and best value for the site will likely involve a comprehensive plan change/zone change to incorporate uses other than mining or public facilities. Thus all of the three academic site scenarios described in this document would involve a comprehensive plan/zone change. All scenarios would be required to go though an extensive public City review process involving hearings before planning commission and City Council, a full traffic analysis and update to the City's Transportation Systems Plan and infrastructure analysis to verify capacity for the proposed development. In addition to the comprehensive plan/zone change, the property would likely be required to go through a Master Planned Development process (possibly running concurrently with the comprehensive plan/zone change), Refer to the Bend Code Chapter 4.5. The Master Planned Development process is intended to encourage planning that results in complete neighborhoods, mixed use development, improved protection of open spaces, transportation options, and site phasing for proposed development. The Master Planned Development process is a public review process and as noted above, would likely run concurrently with the comprehensive plan/zone change process.

Given the public interest in the adjacent OSU proposed facility, and the extensive development process required for a compressive plan/zone change, it is anticipated that this process would likely take 18 to 24 months to complete. Important to note is the Phase 2 development proposed for the OSU Cascades property is identified in the General Plan as SM (Surface Mining), thus any development proposed on that parcel would also likely be required to go through a comprehensive plan/zone change.

Note that all zoning processes and time lines identified in this document are preliminary and based on code analysis and prior experience. The project team has not consulted with the City of Bend and it is highly recommended that all processes and time lines be verified with City Staff prior to engaging in more detailed development scenarios.

SITE CONDITIONS DEVELOPED FOR CONCEPT PLANNING

As identified in the aerial map below, the site is vacant and has been used for years as a surface mining pit and subsequently as a landfill that consists primarily of wood, building material waste, and organic material (refer to Apex report for in-depth analysis on existing geoenvironmental conditions). The site is surrounded by high-end residential housing to the north and west, and commercial development to the east. The property is bounded to the south by an existing mining pit that is currently under contract by OSU for future phases of the Cascades campus expansion.

Outlined further in the Apex geoenvironmental report are the areas of the site that contain the majority of the waste and will require the most costly remediation. The concept plans that follow have taken the existing site conditions.

REMAINING LANDFILL MATERIALS

Figure 5. Tax Lots/Landfill Cells



Landfilled materials on tax lots 719 and 110 have been partially removed. Areas designated as open space or parking have also been partially cleared of materials, but left in safe conditions. Areas intended for retail or educational uses have been completely cleared and backfilled for redevelopment. Landfilled materials on tax lot 111 have been completely removed.

Materials from tax lots 719, 110, and 111 have been processed for the most beneficial reuse possible, and have remained placed in a consolidated cell on tax lot 100. This consolidated cell is intended to be used for open space in all future phases of development.

II. CONCEPT PLANNING

CONCEPTUAL SITE PLANNING PROCESS

As noted above, the intent of the current analysis is to determine the highest and best value for the Deschutes County Landfill site in conjunction with the realities associated with the geoenvironmental constraints that currently exist on the property. The goal of the academic exercise is to establish real dollar values, based on current market trends and to generate a series of possible mix of uses on the site. While Mackenzie and Johnson Economics worked in conjunction to outline appropriate possible uses that might meet future market demands, Apex worked with Mackenzie to determine areas of the site where the largest areas of mitigation would need to occur, such that costs could potentially be minimized and still provide a clean, healthy site for development. The project team met with Deschutes County staff at various times throughout the exercise, reviewing and modifying various schemes and possible uses. Based on the conclusions of this analysis, and as further described in the forthcoming site diagrams, the uses described below were determined to be the highest and best possible uses with regard to land value and return on investment.

As noted previously, all of the proposed uses/use prototypes identified below-with the exception of university supported uses-will likely require an amendment to the current zoning/comprehensive plan designation. Should the property be developed solely as a university use, it would be required to go through a zone change process to bring the property into conformance with the Bend General Plan (Comprehensive plan) as PF Zone (Public Facility Zone), however, it was determined that a combination of the proposed uses are appropriate uses to consider when looking at the highest and best dollar value when determining whether development is feasible in comparison to the geoenvironmental remediation costs.

PROPOSED USES/USE PROTOTYPES

As outlined in detail in Johnson Economic's analysis (JE report), a variety of uses were described that are growing market trends in Central Oregon. Specific uses that were determined to possibly be appropriate when looking at future development and highest dollar value are as follows:

SINGLE FAMILY RESIDENTIAL

The subject site is located in west Bend and is surrounded to the north and west by medium to high end single-family residences. As noted in the JE report, Bend's west side neighborhoods are amongst the market's strongest in the area. Based on growing demand and the desire in central Oregon for Bend citizens to prefer larger spaces that accommodate a high recreational lifestyle, the single family residential market remains strong. Additionally, single family residences located in close proximity to universities typically develop to be highly desirable areas for families as well as individuals associated with the adjacent university use. All three site plan scenarios incorporate single family residential as a prime use component.

MULTI-FAMILY RESIDENTIAL

As noted in the JE report, multi-family residential is not typically a strong market sector in central Oregon due to a large majority of citizens that prefer to own or rent single family residences that accommodate a high recreational lifestyle. However, due to the proximity of the site to the future OSU-Cascades campus, it is likely that there is some potential capacity for multi-family housing that could accommodate individuals associated with the university. Two of the three site scenarios (2 and 3) incorporate multi-family residential as a use component.

SENIOR HOUSING

As noted in the JE report, the State of Oregon expects the number of residents over the age of 65 to double in Deschutes County over the next 25 years, making the senior population a significant area of growth in the future market. Senior housing is generally classified into five categories influenced by the life stage and care needs of target residents; senior apartments, independent living, assisted living.

nursing care, and continuing care retirement communities. These categories are tiered to reflect the level of independence and medical needs required. Per the JE report, the near to intermediate term needs in Central Oregon include development centered around active adult, independent living, and assisted living. The more intensive nursing care and continuing care communities tend to require more integrated medical facilities and are generally located in very close proximity to large medical facilities (i.e., near St. Charles Medical Center). Two of the three site diagram scenarios (2 and 3) incorporate senior housing as a site component.

COMMERCIAL RETAIL

As noted in the JE report, Bend's retail market has remained fairly strong through the past few years and it appears that retail will remain one of the strongest value uses available when looking at lease rates and subsequently land values. That being said, the JE report found that there is an overwhelming surplus in retail space in west Bend. Excluding gasoline, the only store type that was found to have a consistent market opportunity is the health and personal care stores (i.e., Walgreens, RiteAid, etc). With that in mind, retail is a use that is incorporated in all of the proposed site options, but it has been limited to smaller scale retail with a focus on neighborhood/university supported needs. Large big-box retail/grocery is not anticipated to be an appropriate use on this site.

UNIVERSITY SUPPORTED USES (PARKING/PLAYING FIELDS/EDUCATION)

Not addressed directly in the JE report, but discussed with County staff and important to note, is the possibility of additional university uses on the Landfill site. Possible uses that could support university needs include parking facilities, playing/recreational fields, and/or expansion of educational facilities. These uses were not specifically identified but have been addressed in site scenario 3.

DETERMINING RAW LAND VALUES BASED ON PROPOSED USES/USE PROTOTYPES:

Outlined in Appendix A are the active listings in the Bend Market Area and the raw land values by use, as determined by Johnson Economics in conjunction with Compass Commercial Real Estate: Bruce Kemp, Senior Broker/Partner. The raw land values assume that the property dollar value is based on the undeveloped land with no site or infrastructure improvements. In all cases it does assume that the site is clean (per DEQ standards) and sits ready for development. The raw land values are based on today's value and is to be considered an estimate, based off of current market conditions. The valuations are to be used solely to help determine raw property valuation that can be compared to today's cost of geoenvironmental remediation necessary for each of the various site diagram scenarios.

CONCEPTUAL PLAN OPTIONS

Over the course of this academic exercise, the consultant team, in conjunction with County staff, reviewed the use prototypes most likely to generate revenue and which would also blend well with surrounding uses, working within the framework plan established by the City for likely future traffic and infrastructure capacities. Three conceptual site plan options were generated, each with a different level of mitigation required, offset by a different level of development intensity. Each of these schemes is academic in nature, and while based on real market values and economic data, they are not intended to serve as actual development schemes proposed by the County or the consultant team. All three options include cleaning the contaminated cells such that they are deemed safe by the DEQ and any federal regulations (refer to Apex report); however each option varies on the level of backfill and the compaction and infill necessary to redevelop on the land.

Located in the bottom right corner of each site diagram options is a table that notes the hypothetical costs.

The three schemes are as follows:

Option 1: Minimize mitigation and develop around cells 1-3

Option 1 is intended to represent a hypothetical scenario whereas the three contaminated cell areas (refer to the Apex report) are cleaned to a safe level for 'open space' – meaning they can be used for trails and parks, and are deemed clean by the DEQ. The three contaminated cell areas consume approximately 41% of the site, or 29 acres. The remainder of the site (existing clean areas) are shown to be developed with a combination of residential, similar in scale to neighboring residential areas (22.5 acres) and small-scale neighborhood retail/commercial (9.13 acres). While this option is the least costly in mitigation costs, it is also the least intense in development potential and would likely generate the least amount of revenue to offset the mitigation costs.

Option 2: Develop Cell 2 and minimize mitigation at cells 1 and 3

Option 2 is intended to represent a hybrid scenario whereas the two most costly cells to mitigate are cleaned to a safe level for 'open space' – meaning they can be used for trails and parks, and are deemed clean by the DEQ. In this option Cell 2 would be cleaned, prepped, infilled, and compacted such that development could occur. This option leaves approximately 25 acres, or 35% of the site to 'open space' and provides a mixture of uses to include senior care, residential, and small-scale neighborhood retail/commercial. Most of the retail/commercial uses are clustered along the southern property border, adjacent to the future OSU campus. This option conceptually generates more land value but must be offset by the mitigation costs (refer to the Apex report for mitigation costs on each scheme).

Option 3: Maximize development on the site

Option 3 represents a scenario where the majority of the site is developed. Cell 3 (11.83 acres) would remain 'open space' and as shown, would have development clustering around the large natural open space at the center of the site. This option provides a variety of uses including residential, senior care, neighborhood retail/commercial, in addition to the possible inclusion of future academic expansion. Approximately 25 acres is dedicated to educational/athletic fields/academic parking uses. These uses are shown primarily clustered in the southeast corner of the site. This option maximizes development potential; however the mitigation costs are significantly higher (refer to the Apex report for mitigation costs on each scheme).

While these three schemes represent various scenarios and combinations of proposed uses, there are many possible scenarios that could be considered. The team chose these three scenarios as a representative study of 'development of scale' in comparison to mitigation costs. Each option has land values that are based on raw dollar values (refer to Appendix A) as provided by Johnson Economics and real estate professionals from Central Oregon, meaning that the values are based on the land being clean and ready for development from an environmental standpoint, but without any infrastructure improvements. Each option also includes the 7 acres of land to the north of SW Simpson Avenue that is included in the property and is ideally suited for single-family residential lots.







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III. CONCLUSIONS

With marketable potential development options considered, mitigation for the Deschutes County Landfill site may be feasible if market conditions allow. The three options presented in this preliminary study offer possible uses of the site; consideration of market factors at the time of development and utility costs (see Appendix B of this report for estimates of water, sanitary sewer, and storm drainage costs) can further evaluate potential options.

DEVELOPMENT SCENARIO SUMMARY

In summary, the table below outlines the possible development valuations of options 1, 2, and 3 using 2014 raw dollar values. The infrastructure costs (outlined in Appendix B) are included in these estimations; traffic costs are not and will need to be determined separately.

	Potent	ial Value	1	NET: Value Minus			
Option	Total Est. Land Value	SFR Across Simpson Value	Water Distribution	Sanitary Sewer	Storm Drainage	Costs	
1	\$11,635,747	\$1,860,883	\$480,000	\$726,000	\$1,086,000	\$11,204,630	
2	\$14,725,022	\$1,860,883	\$570,000	\$718,000	\$1,110,000	\$14,187,905	
3	\$19,681,715	\$1,860,883	\$565,500	\$677,000	\$1,267,200	\$19,032,898	

Additional alternative development scenarios are possible, but based on the current economic market in Central Oregon, the development capacity of available land elsewhere, it is estimated that valuation would still range from \$10 to \$25 million.

FUTURE STEPS/SUMMARY

This study represents preliminary investigation into feasibility of development of the landfill site by Deschutes County to identify likely valuations and costs based on potential use of the property. The team recommends a more formal, in-depth analysis to confirm these assumptions. Further examinations are recommended, including a more detailed economic gap analysis, detailed projections of the planning process, time lines, costs associated with preferred alternatives, a traffic analysis, and an estimation of the residual value of the property after infrastructure and development costs are subtracted.

APPENDIX A: ACTIVE LISTINGS IN BEND MARKET AREA/RAW LAND VALUES

Active Listings in Bend Market Area

SOURCE: Compass Commercial Real Estate: Bruce Kemp, Partner/Senior Broker 4/2/2014

Area/Site	Acres	List Price	Price/sf	Zone
Shelvin Center Business Park	0.82	\$295,000	\$8.26	NA
Juniper Ridge Business Campus	6.28	\$1,914,898	\$7.00	NA
Golden Triangle Commercial Land	2.3	\$541,000	\$5.40	CG
Century West Washington Center	1.13	\$599,000	\$12.17	CL
Mill Quarter	1.73	\$1,507,000	\$20.00	Mixed-Use
Bend Bulletin Site	3.17	\$2,278,406	\$16.50	Mixed-Use
Mtn. View Medical Site	4.1	\$2,678,940	\$15.00	RH Medial overlay
Awbrey Point	0.71	\$402,000	\$13.00	RM
Boyd Acres MF Site	5.31	\$925,000	\$4.00	RM
Near COCC MF Site	1.68	\$1,000,000	\$13.66	RM
63570 Hunnell Rd	1.46	\$450,000	\$7.08	CG
Old Mill District	0.54	\$599,000	\$25.47	MR
Highway 97 Commercial	1.11	\$1,000,000	\$20.68	CG
27th @ Highway 20	4.64	\$2,830,000	\$14.00	ME
St. Charles Medical Site	5.73	\$6,239,950	\$25.00	RM
Shelvin Hixon MF Site	5.75	\$4,500,000	\$17.97	MR

RAW Land Values by Use

SOURCE: Compass Commercial Real Estate: Bruce Kemp, Partner/Senior Broker

Multi-Family/senior Residential: Going at about 3.50 per ft right now in most places. With a westside premium 5.00-6.00 is more likely

Commercial Retail/Office: Finished lots in the 12.00-15.00 per ft range, larger raw land closer to 10.00 per ft

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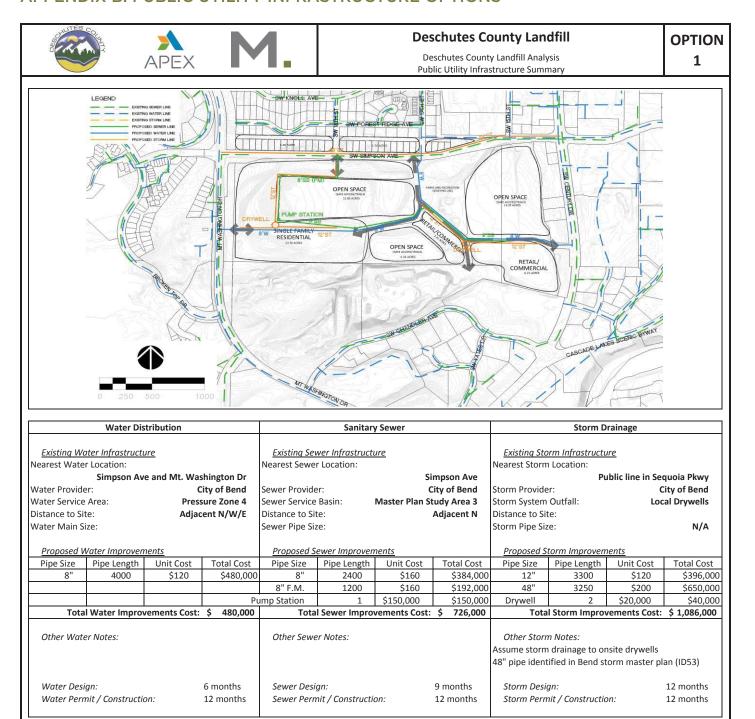
^{*} Broker noted there is not much differential between commercial office and retail. However, escalation is likely to be higher for retail due to greater scarcity and better market conditions.

Single-Familly

3.50 - 4.50 per ft. or 150,000 to 200,000 per acre.

^{*} Broker noted that most of the bank owned supply has worked its way through the market and that single-family land is highly scarce.

APPENDIX B: PUBLIC UTILITY INFRASTRUCTURE OPTIONS





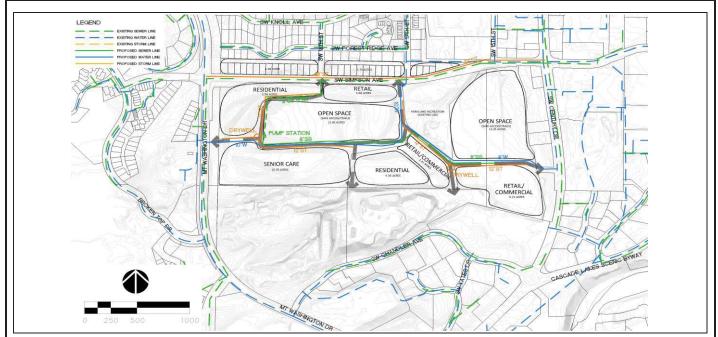






Deschutes County Landfill Deschutes County Landfill Analysis Public Utility Infrastructure Summary

OPTION 2



Water Distribution			Sanitary Sewer				Storm Drainage				
Existing Water Infrastructure			Existing Sewer Infrastructure				Existing Storm Infrastructure				
Nearest Water								Nearest Storm Location:			
	•	e and Mt. Was	-	Simpson Ave				Public line in Sequoia Pkwy			
Water Provide			City of Bend				,			City of Bend	
Water Service			sure Zone 4	Sewer Service		Master Plan S	•	•			al Drywells
Distance to Sit		Adjad	ent N/W/E	Distance to Sit			Adjacent N	Distance to Sit			_
Water Main Si	ze:			Sewer Pipe Siz	e:			Storm Pipe Siz	e:		N/A
Proposed W	Proposed Water Improvements			Proposed Sewer Improvements			Proposed Storm Improvements				
Pipe Size	Pipe Length	Unit Cost	Total Cost	Pipe Size	Pipe Length	Unit Cost	Total Cost	Pipe Size	Pipe Length	Unit Cost	Total Cost
8"	1500	\$120	\$180,000	8"	2500	\$160	\$400,000	12"	3500	\$120	\$420,000
10"	2600	\$150	\$390,000	8" F.M.	1050	\$160	\$168,000	48"	3250	\$200	\$650,000
			Pι	ımp Station	1	\$150,000	\$150,000	Drywell	2	\$20,000	\$40,000
Total	Total Water Improvements Cost: \$ 570,000			Total Sewer Improvements Cost: \$ 718,000			Tota	l Storm Improv	rements Cost:	\$ 1,110,000	
Other Water Notes:						Other Storm Notes: Assume storm drainage to onsite drywells 48" pipe identified in Bend storm master plan (ID53)					
Water Design: 6 months Water Permit / Construction: 12 months			Sewer Design: 9 months Sewer Permit / Construction: 12 months			Storm Design: 12 mg			12 months 12 months		

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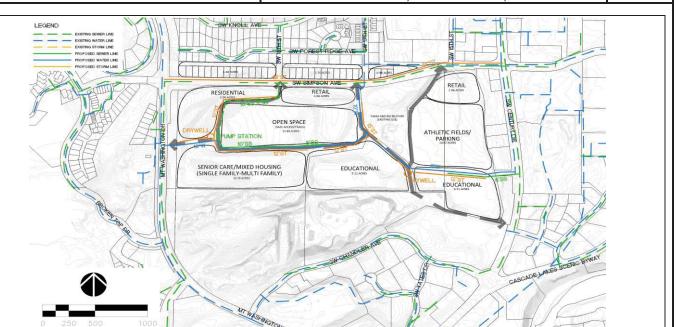






Deschutes County Landfill

Deschutes County Landfill Analysis Public Utility Infrastructure Summary OPTION 3



Water Distribution Sanitary Sewer Storm Drainage											
water distribution			Sanitary Sewer				Storm Drainage				
Existing Water Infrastructure			Existing Sewer Infrastructure				Existing Storm Infrastructure				
Nearest Water				Nearest Sewer Location:				Nearest Storm Location:			
	Simpson Av	e and Mt. Was	hington Dr			s	impson Ave		Pι	ıblic line in Sed	quoia Pkwy
Water Provide	r:	C	ity of Bend				City of Bend	Storm Provider: City o			ity of Bend
Water Service	Area:	Press	sure Zone 4	Sewer Service Basin: Master Plan St			study Area 3 Storm System Outfall:		Loc	Local Drywells	
Distance to Sit	e:	Adjac	ent N/W/E	Distance to Si	te:		Adjacent N	Distance to Site:			
Water Main Si	ze:			Sewer Pipe Siz	ze:			Storm Pipe Siz	e:		N/A
Proposed W	ater Improven/	<u>nents</u>		Proposed Sewer Improvements			Proposed Storm Improvements				
Pipe Size	Pipe Length	Unit Cost	Total Cost	Pipe Size	Pipe Length	Unit Cost	Total Cost	Pipe Size	Pipe Length	Unit Cost	Total Cost
8"	1400	\$120	\$168,000	8"	1000	\$160	\$160,000	12"	3360	\$120	\$403,200
10"	2650	\$150	\$397,500	10"	850	\$180	\$153,000		870	\$200	\$174,000
				10" F.M.	1050	\$180	\$189,000	48"	3250	\$200	\$650,000
			Pι	ımp Station	1	\$175,000	\$175,000	Drywell	2	\$20,000	\$40,000
Total	Water Improv	ovements Cost: \$ 565,500 Total Sewer Impr			l Sewer Impro	vements Cost:	\$ 677,000	Tota	l Storm Improv	vements Cost:	\$ 1,267,200
Other Water Notes:				Other Sewer Notes:			Other Storm Notes: Assume storm drainage to onsite drywells 48" pipe identified in Bend storm master plan (ID53)				
Water Design: 6 months			Sewer Design: 9 months			Storm Design: 12 month			12 months		
Water Permit / Construction: 12 months			Sewer Permit / Construction: 12 months			Storm Permit / Construction: 12 months					

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