

TECHNICAL MEMORANDUM



TM 3.4 – Planning Study Areas

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Engineering Division

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INTRODUCTION

The City of Bend, Oregon (City) has contracted with MWH Americas, Inc. (MWH) to develop a Collection System Master Plan for the current and future wastewater service areas within the Urban Growth Boundary (UGB) and the planned Urban Area Reserve (UAR). The planning area has been divided into nine study areas to provide for a more focused presentation of the final planning information. A stand-alone Study Area Plan will be developed for each of the defined study areas. This Technical Memorandum (TM 3.4) defines the nine updated study areas that will be used during the development of the 2006 Collection System Master Plan.

STUDY AREAS

The entire planning area, both UGB and UAR, was divided into nine different study areas. The study areas were so that they follow “natural” drainage basins and provide the best possible connectivity to the existing and future sewer system in terms of capacity and cost effectiveness. In later tasks, these study areas will be analyzed individually and a future Study Area Plan will be developed for each of these areas proposing new trunk sewers and upgrading existing ones to meet the new demands as growth continues. Each study area will be modeled in InfoSWMM for multiple alternatives, such as building new gravity sewers, diverting flows, and increasing the capacity of the existing pump stations. Each area plan will have a cost-effective alternative for both existing and future systems. *Figure 1* shows the nine defined study areas.

As shown in *Figure 1*, the planning is being done for both the UGB and defined UAR areas. All but Study Area 6 include areas within the UAR. The acreage within the existing UGB and outside the existing UGB for each study area is shown in *Table 1*. This information shows that of the 29,953 acres within the study area 21,241 are within the current UGB. The remaining 8,443 acres are in the UAR or are areas served but not in the UGB or UAR (i.e. Widgi Creek). The priority of the study will be to ensure sanitary service is planned within the existing UGB. It is important to consider the UAR in the planning effort, as there may be specific instances that construction of new interceptors that can serve future areas will be the most cost-effective long-term solution for the City. Ignoring possible UGB expansion possibilities is not a recommended planning practice when considering infrastructure with a planned service life of 50 to 100 years.

There are currently many areas within the City that do not receive sewer service. In May 2005, the planning team gathered GIS data and financial data on the system. This information was combined to determine the tax lots that were provided with sanitary service. Based on this information, statistics on each of the study areas were developed. There are areas within the City that are sewered, but the tax lots are not hooked up to the system. This is mostly due to the tax lot not being developed. To insure that these tax lots are included in the data as not being connected to the system, a specific terminology was developed to describe tax lots that were and were not connected. Below is the terminology that was used to describe the receipt of the sanitary service:

- Served – This tax lot is connected to the City sanitary system based on the financial records provided in May 2005.

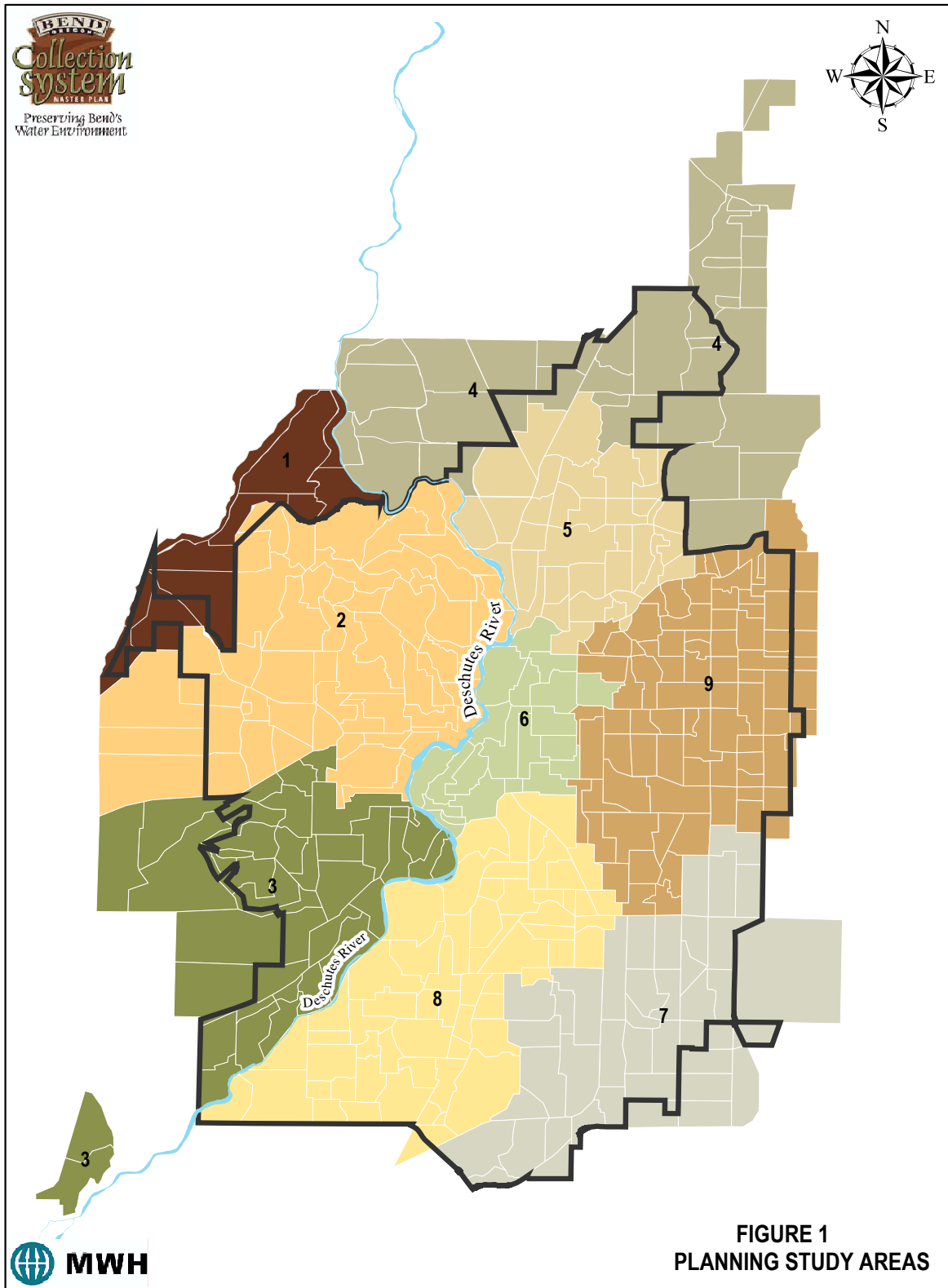


Table 1
2006 Collection System Master Plan
Study Area Characteristics
UGB and UAR Acreage

Study Area	Total (Acres)	UGB (Acres)	UAR (Acres)	¹ Served (Acres)	¹ Unserved (Acres)
1	1,359	268	1,092	36	339
2	4,927	4,056	871	1,970	1,423
3	3,919	2,320	1,600	824	1,418
4	4,624	1,024	3,601	96	311
5	2,186	2,174	12	807	927
6	1,217	1,217	0	610	223
7	3,941	3,117	1,098	950	1,836
8	3,925	3,644	7	1,313	1,909
9	3,853	3,421	163	1,748	1,101
Total	29,953	21,241	8,443	8,353	9,488

Note 1: Served and unserved acres are based on tax lot acreage; therefore they are not additive to UGB acres. The difference is streets and other public facilities.

Note 2: Data based on May 2005 City of Bend Planning and Financial Information.

- Unserved – This tax lot is not connected to the City sanitary system. This is either a tax lot with no development on it or one that is developed, but sanitary service is not provided or is not connected to the system.
- Developed but Unserved – This tax lot is not connected to the City sanitary system, but the tax lot has been developed. The sanitary service is most likely provided by a septic system. This classification is a sub-set of the unserved category.

The GIS database for the City in conjunction with the City’s sewer billing data was used to determine whether each taxlot or parcel received sanitary service or not. This information summarized by study area is shown in **Table 2**. *This information is for parcels within the UGB that were only included in the City’s sewer billing database as of May 2005.* Areas outside of the UGB are not included in this table because the City typically does not provide service to parcels outside the UGB.

In addition to the information on whether the parcel was served or not, it was determined if the unserved parcel was developed or not. This is shown in **Table 1** in the category of “Developed but Unserved” to show the number of parcels that are currently on septic tank.

Additional characteristics for each study area were also queried from the City GIS system by study area. This information included the pipe lengths, and diameter of gravity sewers, pump stations, and the length and size of force mains. This information is summarized by study area in the following sections.

Table 2
2006 Collection System Master Plan
Study Area Characteristics
Served and Unserved Parcels

Study Area	Study Area (Acres)	Areas Within the UGB					
		Parcels Served		Parcels Not Served		Developed but Unserved	
		Number	Acres	Number	Acres	Number	Acres
1	1,359	19	35.58	112	339.40	2	30
2	4,927	4,714	1,969.85	1,534	1,423.32	135	45
3	3,919	1,948	8,23.91	1,201	1,418.33	400	166
4	4,624	2,15	95.64	231	311.28	158	186
5	2,186	1,636	807.02	968	927.06	267	285
6	1,217	2,212	610.28	836	222.86	273	27.85
7	3,941	1,484	950.00	1,955	1,836.00	1,475	938
8	3,925	3,061	1,013.44	2,217	1,909.00	1,013	727.57
9	3,853	5,256	1,748.18	1,147	1,100.78	523	397
Total	29,953	20,545	8,353.89	10,201	9,488.02	4,246	2,802.42

Note: Data based on May 2005 City of Bend Planning and Financial information.

Study Area 1

Study Area 1 is located on the northwest corner of the Bend planning area. Most of this 1,359 acre study area is located outside of the UGB as shown on *Table 1*. Only 268 acres are within the current UGB with the rest of the study area in the UAR. The area is largely undeveloped with only 19 parcels (9.5% by area) served within the UGB as shown in *Table 3*.

Table 3
2006 Collection System Master Plan
Study Area 1 Characteristics

Area in Acres (Gross)	UGB Parcels Served		UGB Parcels Not Served	
	Number	Acres	Number	Acres
1,359.32	19	35.58	112	339.40

There is a limited sanitary sewer system in the area to serve the 19 parcels. The existing gravity sewer system consists of 9,422 LF of 8-inch sewers as shown in *Table 4*. There is one pump station with one 3,000 LF 4-inch forcemain as shown in *Tables 5 & 6*.

Table 4
2006 Collection System Master Plan
Study Area 1
Feet of Gravity Sewer by Size

Size (inches)	Total Length (LF)
8	9,422
Total	9,422

Table 5
2006 Collection System Master Plan
Study Area 1 Pump Stations

Number	Name	Capacity (gpm)	In Model
1	Shevlin Commons	118	Y

Study Area 2

Study Area 2 is located on the west side of the Bend planning area. This is the largest of the planning areas at 4,927 acres. This planning area includes the Awbrey Glenn and Shevlin communities. Most of this study area is within the UGB with only 871 acres outside of the UGB as shown on *Table 1*. There has been high development in this study area over the past five years.

Approximately 58% of the area is currently served with 1,423 acres not served as shown in *Table 7*.

Table 6
2006 Collection System Master Plan
Study Area 1
Feet of Force Main by Size

Size (inches)	Total Length (LF)
4	3000
Total	3000

Table 7
2006 Collection System Master Plan
Study Area 2 Characteristics

Area in Acres (Gross)	UGB Parcels Served		UGB Parcels Not Served	
	Number	Acres	Number	Acres
4,927.35	4714	1,969.85	1,534	1,423.32

The existing gravity sewer system consists of approximately 392,377 LF of sewers ranging from 6 to 30-inch as shown in *Table 8*. The largest quantity approximately (350,383) LF of these sewers are 8-inch lines providing local service to neighborhoods.

The study area consists of three major pump station basins: Westside Regional, Wyndemere and Sawyer Park Regional. The Westside Regional Pump Station is a regional station providing service to all of Study Area 3 and the rest of Study Area 2. The station pumps flow across the river to the west through a 16-inch 2,060-LF force main. The Wyndemere Pump Station serves a relatively small area on the northeast end of the basin. This station pumps flow to the east across the river to Study Area 5 through a 4-inch 3,931-LF force main. A small portion of the Sawyer Park Regional Pump Station Basin is located in Study Area 2; however, the majority of this area is located in Study Area 5. Pump station and force main information for Study Area 2 is summarized in *Tables 9 and 10*.

Table 8
2006 Collection System Master Plan
Study Area 2
Feet of Gravity Sewer by Size

Size (inches)	Total Length (LF)
6	18,427
8	350,383
10	9,035
12	1,428
15	5,094
21	4,793
27	1,349
30	1,868
Total	392,377

Study Area 3

Study Area 3 is located at the southwest side of the Bend planning area. This study area is 3,919 acres in size with 1,600-acres in the UAR as shown in *Table 1*. Currently 63% of the area, 1,418 acres is unserved.

Table 9
2006 Collection System Master Plan
Study Area 2 Pump Stations

Number	Name	Capacity (gpm)	In Model
1	SHEVLIN MEADOWS	145	Y ¹
2	WESTSIDE	6,000	Y
3	WYNDEMERE	240	Y
4	AUBREY GLEN	800	Y
5	RIVERS EDGE	125	N ²
6	TUMALO HEIGHTS	195	N
7	RIMROCK #1	40	N
8	RIMROCK #2	40	N
9	RIMROCK #3	40	N
10	RIMROCK #4	40	N

1."Y" Meaning Yes and the Pump station is included in the Model Network
2."N" Meaning No and the Pump station is not included in the Model Network.

Table 10
2006 Collection System Master Plan
Study Area 2
Feet of Force Main by Size

Size (inch)	Total Length (LF)
2	2,916
3	5,045
4	8,548
8	8,992
Total	25,501

This planning area includes the Widgi Creek service area. The Widgi Creek service area is served by the City under a special agreement and is not located within the UGB or UAR. Currently, no specific planning information is available for the Widgi Creek service area.

Table 11
2006 Collection System Master Plan
Study Area 3
Study Area 3 Characteristics

Area in Acres (Gross)	UGB Parcels Served		UGB Parcels Not Served	
	Number	Acres	Number	Acres
3,919.44	1,948	823.91	1,201	1,418.33

This study area also includes the recently approved Tetherow Destination Resort area that will contribute an estimated base flow of 0.23-mgd. This base flow relates to a potential peak hour flow of 421-gpm that will need to be transported by the existing sanitary system through the Westside Regional Pump Station.

The existing gravity sewer system consists of 186,626 LF of sewers ranging from 4-inch to 21-inch as shown in **Table 12**. The majority of these sewers are 4, 6 and 8-inch lines (approximately 152,583 LF) that provide local service to neighborhoods.

There are currently six pump stations serving the study area through 6,648-LF of force main as shown in **Tables 13 and 14**. Each of these stations provides services to local neighborhoods with the exception of the Main Fire Station Pump Station. This station only provides service to the fire station.

Table 12
2006 Collection System Master Plan
Study Area 3

Size (inches)	Total Length (LF)
4	41
6	5473
8	147,069
10	11,439
12	1,015
15	12,348
18	8,624
21	617
Total	186,626

Table 14
2006 Collection System Master Plan
Study Area 3

Size (inches)	Total Length (LF)
2	2,015
3	110
4	1,925
6	2,598
Total	6,648

Table 13
2006 Collection System Master Plan
Study Area 3 Pump Stations

Number	Name	Capacity (gpm)	In Model
1	WIDGI CREEK	450	Y
2	SUNRISE VILLAGE #1	250	Y
3	SHEVLIN	280	Y
4	BACHELOR VILLAGE	125	N
5	TOUCHMARK	425	N
6	MAIN FIRE STATION	80	N

Study Area 4

Study Area 4 is located at the north side of the Bend planning area. This is the second largest of the planning areas (4,624 acres). This study area has the most UAR area (3,601 acres) as shown on *Table 1*. Approximately 24% of the study area within the UGB is currently served, with 311 acres unserved.

Table 15
2006 Collection System Master Plan
Study Area 4 Characteristics

Area in Acres (Gross)	UGB Parcels Served		UGB Parcels Not Served	
	Number	Acres	Number	Acres
4,624.45	215	95.64	231	311.28

The planning area includes the new Juniper Ridge Development that is a 1,500+ acre area on the northeastern corner of the City. Approximately, 500 acres of the proposed Juniper Ridge Development was brought into the UGB. The statistics for these 500 acres is not included in the statistics summarized in *Table 15*. This development will contain light industrial as well as residential development.

The existing gravity sewer system consists of 26,243 LF of sewers ranging from 8-inch to 42-inch as shown in *Table 16*. The majority of this total (20,981 LF) consisted of 8-inch lines that provide local service to neighborhoods. The 36 and 42-inch lines are portions of the main interceptor transporting wastewater from other areas of the City to the treatment plant.

There are currently seven pump stations serving the study area through 18,588-LF of force main as shown in *Tables 17 and 18*. Each of these stations provides service to a local neighborhood.

Table 16
2006 Collection System Master Plan
Study Area 4
Feet of Gravity Sewer by Size

Size (inches)	Total Length (LF)
8	20,981
21	132
36	2,640
42	2,490
Total	26,243

Table 17
2006 Collection System Master Plan
Study Area 4 Pump Stations

Number	Name	Capacity (gpm)	In Model
1	NORTH POINT	265	Y
2	NORTH WIND	270	Y
3	PHOENIX	228	Y
4	HIGHLANDS	250	N
5	HOLIDAY INN	-	N
6	BOYD ACRES	65	N
7	SUMMER MEADOWS	125	N

Table 18
2006 Collection System Master Plan
Study Area 4
Feet of Force Main by Size

Size (inches)	Total Length (LF)
2	283
3	3,677
4	5,978
6	8,650
Total	18,588

Study Area 5

Study Area 5 is located at the north-central Bend planning area providing service on the east side of the Deschutes River. This study area is 2,186 acres in size with only 12-acres in the UAR as shown in **Table 1**. Approximately 46% of the area is served with 927 acres unserved.

The existing gravity sewer system approximately consists of 148,354 LF of sewers ranging from 6-inch to 42-inch as shown in **Table 20**. Approximately 119,311 LF of these sewers are 6 and 8-inch lines providing local service to neighborhoods. The 4,146 LF of 36 and 42-inch lines are portions of the main interceptor transporting wastewater from other areas of the City to the treatment plant.

There are currently 12 pump stations serving the study area through 47,523 LF of force main as shown in **Tables 21 and 22**. Each of these stations provide services to local neighborhoods with the exception of the North Fire Station Pump Station. The Sawyer Park Regional Pump Station This station only provides service to the fire station. The Sawyer Park Regional Pump Station is located in Study Area 5, but a portion of its basin located in Study Area 2 flowing through a gravity sewer across the river to the station.

Table 19
2006 Collection System Master Plan
Study Area 5 Characteristics

Area in Acres (Gross)	UGB Parcels Served		UGB Parcels Not Served	
	Number	Acres	Number	Acres
2,186.05	1,636	807.02	968	927.06

Table 20
2006 Collection System Master Plan
Study Area 5
Feet of Gravity Sewer by Size

Size (inches)	Total Length (LF)
6	3,351
8	115,960
10	7,271
12	5,310
15	2,313
18	853
21	5,264
24	2,414
27	1,472
36	3,463
42	683
Total	148,354

Table 22
2006 Collection System Master Plan
Study Area 5
Feet of Force Main by Size

Size (inches)	Total Length (LF)
2	1,125
3	16,332
4	18,484
6	11,095
12	487
Total	47,523

Table 21
 2006 Collection System Master Plan
 Study Area 5 Pump Stations

Number	Name	Capacity (gpm)	In Model
1	EMPIRE VILLAGE	125	Y
2	CANAL VIEW	120	Y
3	QUAIL CROSSING	-	Y
4	MAJESTIC	265	Y
5	SAWYER PARK	760	Y
6	ENCHANTMENT	150	N
7	DESCHUTES COUNTY JAIL	115	N
8	NORTH FIRE STATION	80	N
9	SERVICE	120	N
10	DESCHUTES BUSINESS	100	N
11	EMPIRE	50	N
12	GLENSHIRE	172	N
13	RIVERHOUSE	400	N

Study Area 6

Study Area 6 serves the downtown core of the Bend planning area. This study area is 1,217-acres in size with no acres in the UAR as shown in *Table 1*. Approximately 73% of the developable area is served with 223-acres not served as shown in *Table 23*.

Table 23
 2006 Collection System Master Plan
 Study Area 6 Characteristics

Area in Acres (Gross)	UGB Parcels Served		UGB Parcels Not Served	
	Number	Acres	Number	Acres
1,217.3	2,212	610.28	836	222.86

The existing gravity sewer system consists of 162,772 LF of sewer line ranging from 6 to 36-inch as shown in *Table 24*. Approximately, 123,875 LF of these sewers are 6 and 8-inch lines providing local service to neighborhoods. The 8,131 LF of 27, 30, and 36-inch lines are portions of the main interceptor transporting wastewater from other areas of the City to the treatment plant.

There are currently five pump stations serving the study area through 7,548 LF of force main as shown in *Tables 25 and 26*. Each of these stations provides service to a local neighborhood.

Table 24
2006 Collection System Master Plan
Study Area 6

Feet of Gravity Sewer by Size

Size (inches)	Total Length (LF)
6	8,587
8	115,288
10	9,940
12	7,682
15	3,014
16	4,663
18	2,013
21	2,862
24	592
27	3,996
30	2,281
36	1,854
Total	162,772

Table 26
2006 Collection System Master Plan
Study Area 6

Feet of Force Main by Size

Size (inches)	Total Length (LF)
2	557
3	255
4	3,843
6	833
16	2,060
Total	7,548

Table 25
2006 Collection System Master Plan
Study Area 6 Pump Stations

Number	Name	Capacity (gpm)	In Model
1	DRAKE	650	Y
2	PACIFIC	50	N
3	PIONEER	60	N
4	LINSTER	100	N
5	UNDERWOOD	150	N

Study Area 7

Study Area 7 is located at the southeast corner of the Bend planning area. This study area is 3,941-acres in size with 1,098-acres in the UAR as shown in *Table 1*. Approximately 34% of the area is undeveloped with 1,836-acres not served as shown in *Table 27*.

The existing gravity sewer system consists of approximately 57,108 LF of gravity sewers ranging from 6 to 8-inch, which serve local neighborhoods, as shown in *Table 28*.

There are currently 23 pump stations serving the study area through 143,918 LF of force main as shown in *Tables 29 and 30*. All of these stations with the exception of the Murphy Road

Table 27
2006 Collection System Master Plan
Study Area 7 Characteristics

Area in Acres	UGB Parcels Served		UGB Parcels Not Served	
	Number	Acres	Number	Acres
3,941	1,484	950	1,955	1,836

Table 28
2006 Collection System Master Plan
Study Area 7

Size (inch)	Total Length (LF)
6	156
8	56,952
Total	57,108

Table 30
2006 Collection System Master Plan
Study Area 7

Size (inch)	Total Length (LF)
2	48,747
3	12,583
4	39,492
6	41,613
8	451
16	1,032
Total	143,918

Regional Pump Stations provide services to local neighborhood. The Murphy Road Regional Pump Station receives flow from the old Juniper Utility sewer system located on the south side of the City as well as several new developments. The majority of this system consists of small diameter pressure system which explains the large amount of 2 and 3-inch force main as shown in *Table 30*.

Study Area 8

Study Area 8 is located at the south side of the Bend planning area, which is east of the Deschutes River. This study area is 3,925 acres in size with only 7 acres in the UAR as shown in *Table 1*. Approximately 41% of this area is undeveloped with 1,909 acres not being served as shown in *Table 31*.

The existing gravity sewer system consists of 231,637 LF of sewers ranging from 4 to 24-inch as shown in *Table 32*. Approximately 194,227 LF of these sewers is 4 to 8-inch lines providing local service to neighborhoods.

Table 31
2006 Collection System Master Plan
Study Area 8 Characteristics

Area in Acres	UGB Parcels Served		UGB Parcels Not Served	
	Number	Acres	Number	Acres
3,925	3,061	1,313	2,217	1,909

There are currently 12 pump stations serving the study area through 86,816 LF of force main as shown in *Tables 33 and 34*. Some of this force main is local pressure sewer. All of these stations provide service to a local neighborhood.

Table 29
2006 Collection System Master Plan
Study Area 7 Pump Stations

Number	Name	Capacity (gpm)	In Model
1	DARNELL ESTATES	170	Y
2	DESERT SKIES	95	Y
3	CAMDEN	125	Y
4	RIDGEWATER #1	-	Y
5	RIDGEWATER #2	-	Y
6	MURPHY	250	Y
7	FOXBOROUGH	260	Y
8	NOTTINGHAM #1	76	N
9	NOTTINGHAM #2	56	N
10	BLUE RIDGE	70	N
11	THE PINES #1	60	N
12	THE PINES #2	60	N
13	THE PINES #3	60	N
14	THE PINES #4	60	N
15	THE PINES #5	60	N
16	THE PINES #6	60	N
17	THE PINES #7	60	N
18	CROWN VILLA RV #1	80	N
19	CROWN VILLA RV #2	80	N
20	QUAIL RIDGE #1	100	N
21	QUAIL RIDGE #2	100	N
22	SUN MEADOWS	380	N
23	SOUTH FIRE STATION	65	N
24	STONEHAVEN	250	N

Table 32
2006 Collection System Master Plan
Study Area 8
Feet of Gravity Sewer by Size

Size (inch)	Total Length (LF)
4	47
6	6,283
8	187,897
10	5,046
12	15,858
15	2,751
18	7,569
24	6,186
Total	231,637

Table 34
2006 Collection System Master Plan
Study Area 8
Feet of Force Main by Size

Size (inch)	Total Length (LF)
2	3,876
3	38,803
4	18,471
6	25,666
Total	86,816

Table 33
2006 Collection System Master Plan
Study Area 8 Pump Stations

Number	Name	Capacity (gpm)	In Model
1	SOUTH VILLAGE	265	Y
2	OLD MILL	300	Y
3	WOODRIVER VILLAGE	240	N
4	TRI-PEAKS	120	N
5	DESCHUTES RIVER X-ING	148	N
6	PHEASANT RUN	125	N
7	RIVER CANYON #1	320	N
8	RIVER CANYON #2	400	N
9	RIVER RIM	150	N
11	POPLAR PARK	180	N
12	PINE RIDGE	180	N
13	ASPEN RIDGE		N

Study Area 9

Study Area 9 is located at the east-central side of the Bend planning area. This study area is 3,853 acres in size with 163 acres in the UAR as shown in *Table 1*. Approximately 61% of the area is undeveloped with 1,101 acres available for development as shown in *Table 35*.

Table 35
2006 Collection System Master Plan
Study Area 9 Characteristics

Area in Acres (Gross)	UGB Parcels Served		UGB Parcels Not Served	
	Number	Acres	Number	Acres
3,853.27	5,256.00	1,748.18	1,147	1,100.78

The existing gravity sewer system consists of 351,374 LF of sewers ranging from 6-inch to 42-inch as shown in *Table 36*. Approximately, 296,747 LF of these sewers are 6 and 8-inch lines providing local service to neighborhoods. The 10,643 LF of 27 to 42-inch lines are portions of the main interceptor transporting wastewater from other areas of the City to the treatment plant.

There are currently four pump stations serving the study area through 9,817 LF of force main as shown in *Tables 37 and 38*. All of these stations provide service to a local neighborhood.

Table 38
2006 Collection System Master Plan
Study Area 9
Feet of Force Main by Size

Size (inches)	Total Length (LF)
3	2,532
4	4,627
6	2,120
8	538
Total	9,817

Table 36
2006 Collection System Master Plan
Study Area 9
Feet of Gravity Sewer by Size

Size (inches)	Total Length (LF)
6	16,034
8	280,713
10	17,817
12	12,026
15	7,455
18	672
20	3,803
24	2,211
27	5,149
30	791
36	3,341
42	1,362
Total	351,374

Table 37
2006 Collection System Master Plan
Study Area 9 Pump Stations

Number	Name	Capacity (gpm)	In Model
1	RENWICK	40	N
2	HOLLOW PINES #1	140	N
3	HOLLOW PINES #2	95	N
4	SUMMIT PARK	125	N

**Attachment A
Sewered and Unsewered Taxlots**



SEWERED TAXLOTS

Sewered taxlots are the parcels that are currently receiving sanitary service from the City. The status as a sewered taxlot is based on City Finance Department billing data as of May 2005.

UNSEWERED TAXLOTS

Unsewered taxlots are the parcels that are currently not receiving sanitary service from the City. The status as an unsewered taxlot is based on City Finance Department billing data as of May 2005. If a taxlot is unsewered, it is either not developed or is developed and is handling its own sanitary wastewater, most likely through the use of a septic tank.

The following graphic show taxlots that are sewered and unsewered within the City Limits.



Attachment B

**Unsewered Taxlots in Developed and
Undeveloped Areas**



UNSEWERED DEVELOPED TAXLOTS

Developed unsewered taxlots are the parcels that are currently developed, but not receiving sanitary service from the City. The status of a developed unsewered taxlot is based on City Finance Department billing data and tax records as of May 2005. If a taxlot is not sewered, it is handling its own sanitary wastewater, most likely through the use of a septic tank.

UNSEWERED UNDEVELOPED TAXLOTS

Unsewered undeveloped taxlots are undeveloped parcels of land. The status of an undeveloped taxlot is based on City Finance Department billing data and tax records as of May 2005.

The following graphic show the unsewered taxlots in developed and undeveloped areas.