PREPARED FOR:

PREPARED BY:

BOWEN COLLINS & ASSOCIATES

WEST POINT CITY

SEWER IMPACT FEE FACILITIES PLAN and IMPACT FEE ANALYSIS

SEPTEMBER 2021

SEWER IMPACT FEE FACILITIES PLAN

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Prepared for:

Prepared by:

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EXECUTIVE SUMMARY
SEWER IMPACT FEE FACILITIES PLAN

The purpose of an Impact Fee Facilities Plan (IFFP) is to identify demands placed upon West Point City facilities by future development within the city and future annexation areas and to evaluate how these demands will be met by West Point City. The IFFP is also intended to outline the improvements which may be funded through impact fees.

WHY IS AN IFFP NEEDED

The IFFP provides a technical basis for assessing updated impact fees throughout West Point City. This document addresses the future infrastructure needed to serve the study area within West Point City, see Figure 1. The existing and future capital projects documented in this IFFP will ensure that level of service standards is maintained for all existing and future residents who reside within the service area. Local governments must pay strict attention to the required elements of the Impact Fee Facilities Plan which are enumerated in the Impact Fees Act.

PROJECTED FUTURE GROWTH

Before evaluating system capacity, it is first necessary to calculate the demand associated with existing development and projected growth. Using available information for existing development and growth projections from City Officials it was determined that 104.9 ERUs would be developed each year. Projected growth in system demand is summarized in Table ES-1 in terms of Equivalent Residential Units (ERUs).

Table ES-1
West Point Service Area Projections

Year	Connected Service Area ERUs	Estimated Dry Weather Sewer Flows (MGD)
2021	0	0.00
2031	1,049	0.27
2041	2,098	0.53
2051	3,147	0.80
2061	4,196	1.07
2066	4,721	1.20

An ERU represents the demand that a typical single-family residence places on the system. Service Area ERUs shows the existing ERUs within the study area. The basis of an ERU for historical flow rates is summarized in Table ES-2.

Hooper

Area 1
599 AC

Area 2
516 AC

Area 3
258 AC

Area 4
264 AC

Area 5
127 AC

Area 6
82 AC

Area 7
97 AC

Area 8
203 AC

Clinton

West Point

Roy

Syracuse

West Point City Sewer Study Area

North Davis Sewer District Treatment Facility

6500 W
6000 W
5500 W
5000 W
4500 W
4300 W

2425 N
1925 N
1800 N
1300 N
800 N
650 N

4220
4240

42-in
36 in
15 in
48 in
30 in

Hooper Canal
Clinton Drain

4223.196

L E G E N D

- Area Servicable by Gravity
- Area to be Pumped
- West Davis Corridor
- North Davis Sewer District Trunk Lines
- West Point City Sewer Pipelines

Contours - 2018 LiDAR

- Minor (2 ft)
- Major (10 ft)

NORTH:

SCALE: 1 in = 1,250 ft

STUDY AREA

WEST POINT CITY

2021 SANITARY SEWER SYSTEM STUDY

BOWEN COLLINS & ASSOCIATES

FIGURE NO. 1

P:\West Point City\668-20-01 2020 Sanitary Sewer System Study\4.0 GIS\WestPointCity_ProjectArea.mxd kgrover 8/17/2021

Table ES-2
Service Area Historic Flows

Item	Value for Existing Conditions[1]	Value for 10-Year Growth	Total 10-Year Conditions
Equivalent Residential Connections (ERUs)	n/a	1,049	1,049
Domestic Wastewater Production (mgd)	n/a	0.23	0.23
Infiltration, Maximum Month (mgd)	n/a	0.04	0.04
Average Day, Maximum Month Flow (mgd)	n/a	0.27	0.27
Peak Hour Flow (mgd)	n/a	0.84	0.84
Flows per ERU			
Domestic Wastewater Production (gpd/ERU)	220	220	220
Average Day, Maximum Month Flow (gpd/ERU)	255	255	255
Peak Hour Flow (gpd/ERU)	800.7	800.7	800.7

[1]There is no existing regional sewer collection system within the study area. All existing residents are serviced by individual septic systems or temporary lift stations. Residents are anticipated to connect to a regional sewer system as it becomes available.

LEVEL OF SERVICE

Level of service is defined in the Impact Fees Act as "the defined performance standard or unit of demand for each capital component of a public facility within a service area". Summary values for both existing and proposed levels of service are contained in Table ES-3.

Table ES-3
Sanitary Sewer Level of Service

	Existing Level of Service[2]	Proposed Level of Service
Gravity Lines - Maximum Ratio of Flow[1] to Pipeline Capacity/Percent of Collection System that Meets the Standard	n/a	0.75/100%
Force Mains - Maximum Velocity (ft/s)/Percent of Collection System that Meets the Standard	n/a	7/100%
Lift Station - Maximum Ratio of Peak Flow to Pumping Capacity/Percent of Collection System that Meets the Standard	n/a	0.85/100%
Design Flow - Average Day, Peak Month Flow (gpd per ERU)	n/a	255

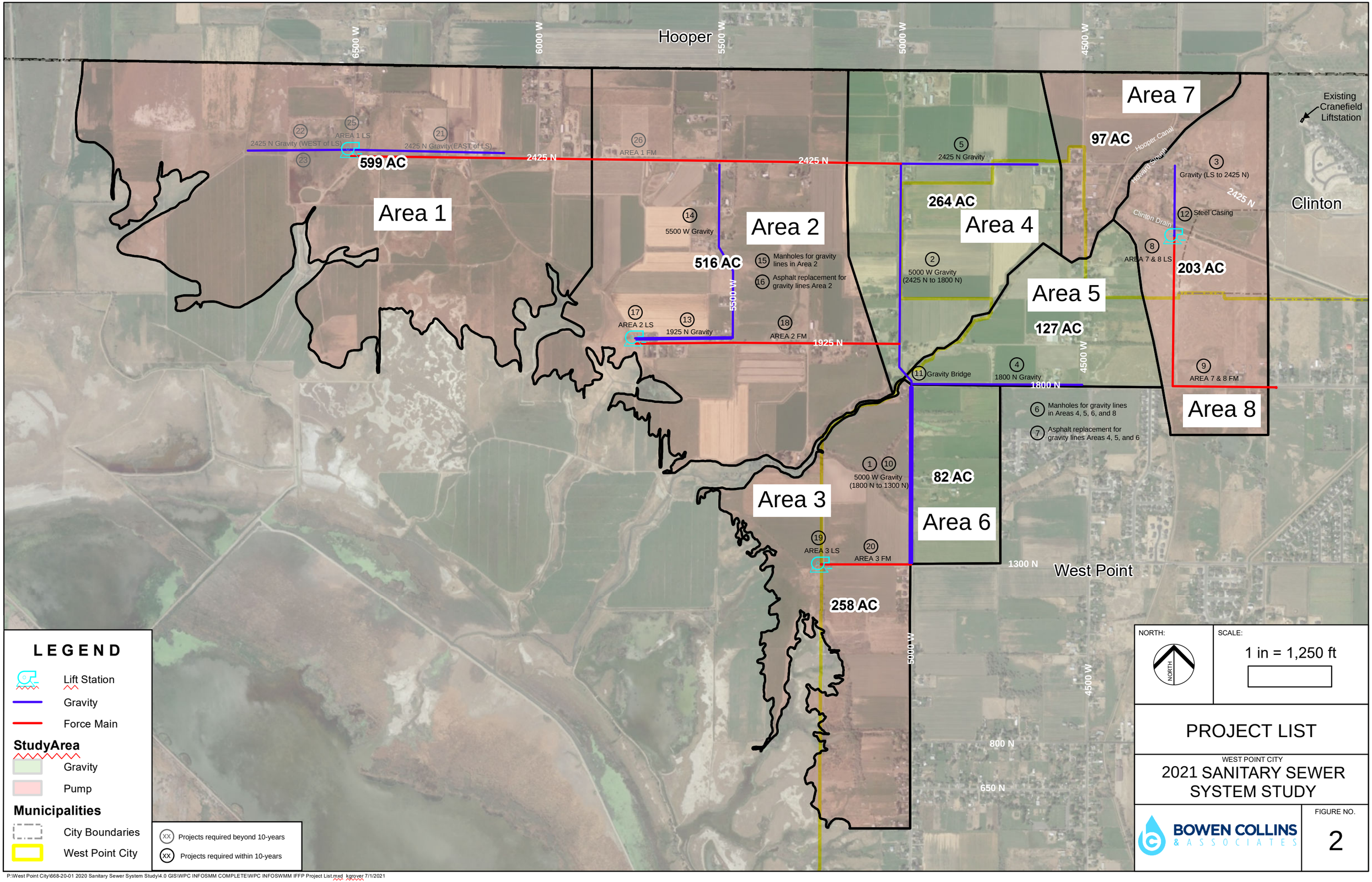
[1] Peak hour, dry weather flow
[2]No existing level of service within study area because there is no existing sewer collection system. The level of service was determined based on industry standards, other existing sewer collection within West Point City (outside of the study area) and input from West Point City.

EXISTING CAPACITY AVAILABLE TO SERVE FUTURE GROWTH

There is currently no existing system capacity in the area. Projected future growth will be met through construction of additional system level capacity through new facilities.

REQUIRED SYSTEM IMPROVEMENTS

Additional improvements required to serve new growth are summarized in Table ES-4. To satisfy the requirements of state law, Table ES-4 provides a breakdown of the percentage of the project costs attributed to future users of the system. For future use, capacity has been divided into capacity to be used by growth within the 10-year planning horizon of this IFFP and capacity that will be available for growth beyond the 10-year horizon. These project components' locations are displayed in Figure 2. The order of the projects shown in Table ES-4 are non-consequential and do not represent a chronological order of when projects would be needed. Project order will most likely be determined by specific growth demands and needs of the City. If projects change significantly from what is shown, the IFFP and IFA will need to be updated to reflect these changes.


Hooper
6500 W
6000 W
5500 W
5000 W
4500 W
Area 1
599 AC
2425 N Gravity (WEST of LS)
AREA 1 LS
2425 N Gravity(EAST of LS)
AREA 1 FM
2425 N
Area 2
516 AC
5500 W Gravity
Manholes for gravity lines in Area 2
Asphalt replacement for gravity lines Area 2
AREA 2 LS
1925 N Gravity
AREA 2 FM
1925 N
Area 3
82 AC
5000 W Gravity (1800 N to 1300 N)
AREA 3 LS
AREA 3 FM
258 AC
1300 N
West Point
Area 4
264 AC
2425 N Gravity
5000 W Gravity (2425 N to 1800 N)
Gravity Bridge
1800 N Gravity
1800 N
Area 5
127 AC
Manholes for gravity lines in Areas 4, 5, 6, and 8
Asphalt replacement for gravity lines Areas 4, 5, and 6
800 N
650 N
Area 6
Area 7
97 AC
Hooper Canal
Howard Slough
Gravity (LS to 2425 N)
Steel Casing
Clinton Drain
AREA 7 & 8 LS
203 AC
AREA 7 & 8 FM
Area 8
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Lift Station
Gravity
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Projects required within 10-years
NORTH:
NORTH
SCALE:
1 in = 1,250 ft
PROJECT LIST
WEST POINT CITY
2021 SANITARY SEWER SYSTEM STUDY
BOWEN COLLINS & ASSOCIATES
FIGURE NO.
2
P:\West Point City\668-20-01 2020 Sanitary Sewer System Study\4.0 GIS\WPC INFOSMM COMPLETE\WPC INFOSWMM IFFP Project List.mxd kgrover 7/1/2021

Table ES-4
Project Costs Allocated to Projected Development, 10 Year Planning Horizon

Project ID	Year	Project Location	Contributing Areas	Project	Total Project Cost	Percent to Existing	Percent to 10 Year Growth	Percent to Growth 2031 through Buildout	Cost to Existing	Cost to 10 Year Growth	Cost to Growth 2031 through Buildout
Gravity Line Projects											
1 & 10	2021	6	1, 2, 4, 5 & 6	5000 W: 30-inch PVC Sewer Pipeline & Drainage Pipe Loops	$ 1,480,275	2.8%	17.9%	79.3%	$ 41,448	$ 264,969	$ 1,173,858
2	2021	4	1, 2 & 4	5000 W: 24-inch PVC Sewer Pipeline	$ 1,560,600	2.4%	15.5%	82.1%	$ 37,454	$ 241,893	$ 1,281,253
3	2021	8	7 & 8	Clinton Drain Crossing: 12-inch PVC Sewer Pipeline(deeper excavation)	$ 461,700	5.0%	33.2%	61.8%	$ 23,085	$ 153,284	$ 285,331
4	2021	5	5	1800 N: 12-inch PVC Sewer Pipeline	$ 719,550	7.9%	32.2%	59.9%	$ 56,844	$ 231,696	$ 431,010
5	2021	4	4	2425 N: 10-inch PVC Sewer Pipeline	$ 518,805	2.9%	34.0%	63.1%	$ 15,045	$ 176,394	$ 327,366
6	2021	4,5,6, & 8	1, 2, 4, 5, 6, 7 & 8	Sewer Manholes (assumed standard 5-foot diameter) Area 4, 5, 6, and 8 Only	$ 388,800	3.1%	20.3%	76.6%	$ 12,053	$ 78,926	$ 297,821
7	2021	4,5, & 6	1, 2, 4, 5 & 6	Asphalt Replacement for Gravity Sewer Pipelines in Areas 4, 5, and 6 only	$ 1,076,040	2.8%	17.9%	79.3%	$ 30,129	$ 192,611	$ 853,300
11	2021	4 & 5	1, 2 & 4	24-inch Pipe Bridge (80' bridge)	$ 337,500	2.4%	15.5%	82.1%	$ 8,100	$ 52,313	$ 277,088
12	2021	7 & 8	7 & 8	Steel Casing (Clinton Drain)	$ 119,475	5.0%	33.2%	61.8%	$ 5,974	$ 39,665	$ 73,836
13	2026	2	2	1925 N: 18-inch PVC Sewer Pipeline (deeper excavation)	$ 668,250	2.9%	24.3%	72.8%	$ 19,379	$ 162,385	$ 486,486
14	2026	2	2	5500 W: 15-inch PVC Sewer Pipeline (deeper excavation)	$ 1,205,820	2.9%	24.3%	72.8%	$ 34,969	$ 293,014	$ 877,837
15	2026	2	2	Asphalt Replacement for Gravity Sewer Pipelines in Area 2 Only	$ 388,080	2.9%	24.3%	72.8%	$ 11,254	$ 94,304	$ 282,522
16	2026	2	2	Sewer Manholes(assumed standard 5-foot diameter) Area 2 Only	$ 142,560	2.9%	24.3%	72.8%	$ 4,134	$ 34,642	$ 103,784
				Subtotal	$ 9,067,455.0				$ 299,868	$ 2,016,096	$ 6,751,492
Lift Stations & Force Mains Projects											
8	2021	7 & 8	7 & 8	Lift Station (0.7 MGD)	$ 1,559,250	5.0%	33.2%	61.8%	$ 77,962	$ 517,671	$ 963,617
9	2021	7 & 8	7 & 8	FM: 6-inch Force Main - (DR11 HDPE) w/ Asphalt	$ 583,200	5.0%	33.2%	61.8%	$ 29,160	$ 193,622	$ 360,418
17	2026	2	2	Area 2 Lift Station (1.0 MGD)	$ 2,338,875	2.9%	24.3%	72.8%	$ 67,827	$ 567,721	$ 1,703,327
18	2026	2	2	Area 2 FM: 8-inch Force Main - (DR11 HDPE) w/ Asphalt	$ 672,030	2.9%	24.3%	72.8%	$ 19,489	$ 163,123	$ 489,418
19	2031	3	3	Area 3 Lift Station (0.6 MGD)	$ 1,336,500	6.0%	26.4%	67.6%	$ 80,190	$ 352,243	$ 904,067
20	2031	3	3	Area 3 FM: 6-inch Force Main - (DR11 HDPE) w/ Asphalt	$ 226,800	6.0%	26.4%	67.6%	$ 13,608	$ 59,775	$ 153,417
				Subtotal	$ 6,716,655				$ 288,236	$ 1,854,155	$ 4,574,264
				Total	$ 15,784,110				$ 588,104	$ 3,870,251	$ 11,325,756

IMPACT FEE FACILITIES PLAN (SEWER)

INTRODUCTION

West Point City has retained Bowen Collins & Associates (BC&A) to prepare an Impact Fee Facilities Plan (IFFP) for sewer collection services provided by the City. The purpose of an IFFP is to identify demands placed upon the City's facilities by future development and evaluate how these demands will be met by the City. The IFFP is also intended to outline the improvements which may be funded through impact fees.

Much of the analysis forming the basis of this IFFP has been taken from the City's 2021 Sewer Study conducted by BC&A. The reader should refer to this document for additional discussion of planning and evaluation methodology beyond what is contained in this report.

SERVICE AREA

The service area for the IFFP and subsequent IFA is defined as the same study area as the 2021 Sewer Study. The current study area includes areas not served by the sewer system currently within West Point City and nearby unincorporated areas of Davis County that may potentially be annexed by West Point City in the future. Generally, the service area is defined on the west by the Great Salt Lake floodplain boundary (officially the 4,217 contour), on the north by the Weber/Davis County line, on the east by the proposed West Davis Corridor, and the south does not extend further south than 500 N (see Figure 1). This study area will be treated as a single service area for the calculation of the Impact Fee. The remainder of the City will not be impacted by this new Impact Fee Study.

IMPACT FEE FACILITY PLAN COMPONENTS

Requirements for the preparation of an IFFP are outlined in Title 11, Chapter 36a of the Utah Code Annotated (the Impact Fees Act). Under these requirements, an IFFP shall accomplish the following for each facility:

1. Identify the existing level of service
2. Establish a proposed level of service
3. Identify excess capacity to accommodate future growth at the proposed level of service
4. Identify demands placed upon existing public facilities by new development
5. Identify the means by which demands from new development will be met
6. Consider the following additional issues:
    a. revenue sources to finance required system improvements
    b. necessity of improvements to maintain the proposed level of service
    c. need for facilities relative to planned locations of schools

The following sections of this report have been organized to address each of these requirements.

EXISTING LEVEL OF SERVICE – Utah Code Annotated 11-36a-302(1)(a)(i)

Level of service is defined in the Impact Fees Act as "the defined performance standard or unit of demand for each capital component of a public facility within a service area". This section discusses the level of service being currently provided to existing users.

Unit of Demand

For the purposes of this analysis, it is useful to define these various demands in terms of Equivalent Residential Units (ERUs). An ERU represents the demand that a typical single-family residence places on the system. Historic water consumption and sewer flow data gathered as part of the ongoing North Davis Sewer District (NDSD) Impact Fee Study was used to estimate average sewer flows for the study area, including allowance for inflow and infiltration (I&I). Based on this data an assumed 220 gpd/ERU (domestic wastewater production) + 55 gpd/ERU (I&I) = 255 gpm/ERU was used as the average day, maximum month domestic wastewater flow. This is summarized in Table 1.

Table 1
Service Area Historic Flows and Definition of an ERU

Item	Value for Existing Connections[1]	Value for 10-Year Growth (connected to system)	Total 10-Year Conditions
Equivalent Residential Connections (ERUs)	n/a	1,049	1,049
Domestic Wastewater Production (mgd)	n/a	0.23	0.23
Infiltration, Maximum Month (mgd)	n/a	0.04	0.04
Average Day, Maximum Month Flow (mgd)	n/a	0.27	0.27
Peak Hour Flow (mgd)	n/a	0.84	0.84
Flows per ERU			
Domestic Wastewater Production (gpd/ERU)	220	220	220
Average Day, Maximum Month Flow (gpd/ERU)	255	255	255
Peak Hour Flow (gpd/ERU)	800.7	800.7	800.7

[1]There is no existing system level sewer collection system in the study area.

Included in the table is the flow per ERU in terms of both average and peak flows. Conveyance pipelines, lift stations, and force mains must be designed based on peak hour flow (function of daily flow and diurnal flow variation).

Performance Standard

Performance standards are those standards that are used to design and evaluate the performance of facilities. This section discusses the existing performance standards for the study area.

1. **Peak Design Flows** – Peaking factors used are based on the State of Utah Peak Instantaneous Demand equation (refer to Utah Code R309-105-9). Peaking factors were adjusted based on the contributing area size. Peaking factors ranged from 2.3 to 4.0 depending on the

contributing area size. Gravity pipelines, force mains and lift stations were designed based on these peaking factors.

2. **Gravity Pipeline Capacity** – City standards require that all gravity driven sewer mains be designed such that the peak flow in the pipe is less than or equal to 75 percent of the pipe's full capacity using a manning's roughness factor of 0.013.
3. **Gravity Pipeline Slopes** – Due to the flat terrain and shallow existing sewer, the City's standards require that all system level gravity trunk lines and most project level sewer pipelines be installed at minimum slopes as defined by the State of Utah [R317-3-2.3(D)(4)]. If pipelines are installed at greater slopes, the serviceable area by gravity will be reduced. Some sewer pipes were upsized to minimize the required slope and maximize the area serviceable by gravity. These upsized pipes can potentially create additional operation and maintenance (O&M) costs for the City. These potential increases in O&M were discussed with City officials and were determined to be an economical solution to service the study area.
4. **Force main capacity** - City standards require that all force mains be designed such that the maximum flow velocity is no greater than 7 feet per second.
5. **Lift stations -** City standards require that all lift stations be designed such that the maximum ratio of the peak flow to pumping capacity is no greater than 0.85.

These design standards were used as the level of service for the system evaluation.

Existing Level of Service Summary

Currently, there is no existing system level sewer service in the City's study area. The level of service was determined based on industry standards, other existing sewer collection within West Point City (outside of the study area) and input from City personnel. The majority of the existing residents in the study area rely on septic systems for the disposal and treatment of their wastewater. There is a small subdivision (Sunview Estates) within the study area that has a temporary lift station, that will eventually be replaced by a regional lift station, that conveys wastewater to an existing gravity line. As the development is not currently complete (as of this study), it was assumed that 15 out of the 30 possible units would be existing for the purposes of the Impact Fee calculations.

PROPOSED LEVEL OF SERVICE - Utah Code Annotated 11-36a-302(1)(a)(ii)

The proposed level of service is the performance standard used to evaluate system needs in the future. The Impact Fee Act indicates that the proposed level of service may:

1. diminish or equal the existing level of service; or
2. exceed the existing level of service if, independent of the use of impact fees, the City implements and maintains the means to increase the level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service.

In the case of this IFFP, no changes are proposed to the existing level of service for design standards. Thus, future growth will essentially be evaluated based on the same design standards level of service as identified for existing.

Proposed Level of Service Summary

The resulting proposed level of service for the City is summarized in Table 2.

Table 2
Proposed Sanitary Sewer Level of Service

	Existing Level of Service[2]	Proposed Level of Service
Gravity Lines - Maximum Ratio of Flow[1] to Pipeline Capacity/Percent of Collection System that Meets the Standard	n/a	0.75/100%
Force Mains - Maximum Velocity (ft/s)/Percent of Collection System that Meets the Standard	n/a	7/100%
Lift Station - Maximum Ratio of Peak Flow to Pumping Capacity	n/a	0.85/100%
Design Flow - Average Day, Peak Month Flow (gpd per ERU)	n/a	255

[1]Peak hour, dry weather flow
[2]No existing system level City sewer within the study area.

EXCESS CAPACITY TO ACCOMMODATE FUTURE GROWTH - Utah Code Annotated 11-36a-302(1)(a)(iii)

There is no existing system level sewer service in the study area. As such, there is no excess capacity in the current system to accommodate for future growth. All future growth capacity will be accommodated by the future system level sewer system.

DEMANDS PLACED ON FACILITIES BY NEW DEVELOPMENT - Utah Code Annotated 11-36a-302(a)(iv)

Growth within the City's study area, and projections of sewer flows resulting from said growth is discussed in detail in the City's Sewer Study. Growth in terms of both Equivalent Residential Units and corresponding sewer flows is summarized in Table 3.

Table 3
West Point Projections of Growth

Year	Total Area ERUs[1]	Connected ERUs[2]	Domestic Wastewater (MGD)	Max Month Infiltration (MGD)	Total Max Month, Average Day Flow (MGD)	Peak Hour Flows - City Area (MGD)
2021	164	0	0.00	0.00	0.00	0.00
2031	1,158	1,049	0.23	0.04	0.27	0.84
2041	2,176	2,098	0.46	0.07	0.53	1.68
2051	3,194	3,147	0.69	0.11	0.80	2.52
2061	4,211	4,196	0.92	0.15	1.07	3.36
2066	4,721	4,721	1.04	0.17	1.20	3.78

[1] Total area ERUs are the total number of ERUs within the study area. There are approximately 164 existing ERUs that will connect to the system as the system is built out. For this study, it was assumed that 15 out of the 30 total units of the Sunview Estates Subdivision were considered existing.
[2] This column represents the assumed total ERUs connected to the City's sewer system within the study area.

It is important to track the existing ERUs connecting to the system as the City has not yet fully decided whether existing residents will be required to pay impact fees. However, for the purposes of this analysis, it has been assumed that existing residents will not be required to pay the sewer impact fee. This will result in a slightly lower impact fee for all users than if they were included in the impact fee calculation. If the City does want to collect impact fees from existing residents within the study area, the impact fee would need to be updated to reflect this change.

INFRASTRUCTURE REQUIRED TO MEET DEMANDS OF NEW DEVELOPMENT – Utah Code Annotated 11-36a-302(1)(a)(v)

To satisfy the requirements of state law, demands placed upon existing system facilities by future development was projected using the process outlined below. Each of the steps were completed as part of this plan's development:

1. **Existing Demand** – There is no existing demand that will be placed on the City's system level sewer system. The existing ERUs in the study area will connect to the system as it becomes available but is currently being served by individual septic systems or a temporary lift station.
2. **Existing Capacity** – There is no existing system level capacity, as the City currently has no existing system level collection system facilities within the study area.
3. **Existing Deficiencies** – There is no existing deficiencies, as the existing ERUs are serviced by individual septic tanks or a temporary lift station.
4. **Future Demand** - The demand future development will place on the system was estimated based on development projections (See the 2021 Sewer Study).
5. **Future Deficiencies** – There will be no future deficiencies within the study area because the sewer system will be initially built for build-out conditions.
6. **Recommended Improvements** – Needed system improvements were identified to meet demands associated with future development.

The steps listed above "identify demands placed upon existing public facilities by new development activity at the proposed level of service; and… the means by which the political subdivision or private entity will meet those growth demands" (Section 11-36a-302(1)(a) of the Utah Code Annotated).

10 Year Improvement Plan

In the City's 2021 Sewer Study, capital facility projects needed to provide service to customers of the study area were identified. Some of the projects identified in the study will not be needed within the next 10 years. Only infrastructure to be constructed within a 10-year horizon will be considered in the calculation of impact fees to avoid uncertainty surrounding improvements further into the future. Table 4 summarizes the components of projects identified in the sewer study that will need to be constructed within the next ten years. These project components' locations are displayed in Figure 2.

Table 4
Project Costs Allocated to Projected Development, 10 Year Planning Horizon

Project ID	Year	Project Location	Contributing Areas	Project	Total Project Cost	Percent to Existing	Percent to 10 Year Growth	Percent to Growth 2031 through Buildout	Cost to Existing	Cost to 10 Year Growth	Cost to Growth 2031 through Buildout
Gravity Line Projects											
1 & 10	2021	6	1, 2, 4, 5 & 6	5000 W: 30-inch PVC Sewer Pipeline & Drainage Pipe Loops	$ 1,480,275	2.8%	17.9%	79.3%	$ 41,448	$ 264,969	$ 1,173,858
2	2021	4	1, 2 & 4	5000 W: 24-inch PVC Sewer Pipeline	$ 1,560,600	2.4%	15.5%	82.1%	$ 37,454	$ 241,893	$ 1,281,253
3	2021	8	7 & 8	Clinton Drain Crossing: 12-inch PVC Sewer Pipeline(deeper excavation)	$ 461,700	5.0%	33.2%	61.8%	$ 23,085	$ 153,284	$ 285,331
4	2021	5	5	1800 N: 12-inch PVC Sewer Pipeline	$ 719,550	7.9%	32.2%	59.9%	$ 56,844	$ 231,696	$ 431,010
5	2021	4	4	2425 N: 10-inch PVC Sewer Pipeline	$ 518,805	2.9%	34.0%	63.1%	$ 15,045	$ 176,394	$ 327,366
6	2021	4,5,6, & 8	1, 2, 4, 5, 6, 7 & 8	Sewer Manholes (assumed standard 5-foot diameter) Area 4, 5, 6, and 8 Only	$ 388,800	3.1%	20.3%	76.6%	$ 12,053	$ 78,926	$ 297,821
7	2021	4,5, & 6	1, 2, 4, 5 & 6	Asphalt Replacement for Gravity Sewer Pipelines in Areas 4, 5, and 6 only	$ 1,076,040	2.8%	17.9%	79.3%	$ 30,129	$ 192,611	$ 853,300
11	2021	4 & 5	1, 2 & 4	24-inch Pipe Bridge (80' bridge)	$ 337,500	2.4%	15.5%	82.1%	$ 8,100	$ 52,313	$ 277,088
12	2021	7 & 8	7 & 8	Steel Casing (Clinton Drain)	$ 119,475	5.0%	33.2%	61.8%	$ 5,974	$ 39,665	$ 73,836
13	2026	2	2	1925 N: 18-inch PVC Sewer Pipeline (deeper excavation)	$ 668,250	2.9%	24.3%	72.8%	$ 19,379	$ 162,385	$ 486,486
14	2026	2	2	5500 W: 15-inch PVC Sewer Pipeline (deeper excavation)	$ 1,205,820	2.9%	24.3%	72.8%	$ 34,969	$ 293,014	$ 877,837
15	2026	2	2	Asphalt Replacement for Gravity Sewer Pipelines in Area 2 Only	$ 388,080	2.9%	24.3%	72.8%	$ 11,254	$ 94,304	$ 282,522
16	2026	2	2	Sewer Manholes(assumed standard 5-foot diameter) Area 2 Only	$ 142,560	2.9%	24.3%	72.8%	$ 4,134	$ 34,642	$ 103,784
				Subtotal	$ 9,067,455.0				$ 299,868	$ 2,016,096	$ 6,751,492
Lift Stations & Force Mains Projects											
8	2021	7 & 8	7 & 8	Lift Station (0.7 MGD)	$ 1,559,250	5.0%	33.2%	61.8%	$ 77,962	$ 517,671	$ 963,617
9	2021	7 & 8	7 & 8	FM: 6-inch Force Main - (DR11 HDPE) w/ Asphalt	$ 583,200	5.0%	33.2%	61.8%	$ 29,160	$ 193,622	$ 360,418
17	2026	2	2	Area 2 Lift Station (1.0 MGD)	$ 2,338,875	2.9%	24.3%	72.8%	$ 67,827	$ 567,721	$ 1,703,327
18	2026	2	2	Area 2 FM: 8-inch Force Main - (DR11 HDPE) w/ Asphalt	$ 672,030	2.9%	24.3%	72.8%	$ 19,489	$ 163,123	$ 489,418
19	2031	3	3	Area 3 Lift Station (0.6 MGD)	$ 1,336,500	6.0%	26.4%	67.6%	$ 80,190	$ 352,243	$ 904,067
20	2031	3	3	Area 3 FM: 6-inch Force Main - (DR11 HDPE) w/ Asphalt	$ 226,800	6.0%	26.4%	67.6%	$ 13,608	$ 59,775	$ 153,417
				Subtotal	$ 6,716,655				$ 288,236	$ 1,854,155	$ 4,574,264
				Total	$ 15,784,110				$ 588,104	$ 3,870,251	$ 11,325,756

Project Cost Attributable to Future Growth

To satisfy the requirements of state law, Table 4 provides a breakdown of the capital facility projects and the percentage of the project costs attributed to existing and future users. As defined in Utah Code Annotated 11-36a-102(15), the Impact Fee Facilities Plan should only include the proportionate share of "the cost of public facilities that are roughly proportionate and reasonably related to the service demands and needs of any development activity." Some projects identified in the table are required solely to meet future growth, but some projects also provide a benefit to existing users. Projects that benefit existing users include those projects addressing existing capacity needs and maintenance related projects.

All projects within the City's study area needed to service existing residents and new growth, costs have been divided proportionally between existing and future users based on their use of the facility. A few additional notes regarding specific projects are as follows:

Project Cost Attributable to 10 Year Growth

Included in Table 4 is a breakdown of capacity use associated with growth both through the next 10 years and for growth beyond 10 years. A challenge of sewer infrastructure is that it is not cost effective to add capacity in small increments. Once a pipeline is being built, it needs to be built to satisfy long term capacity needs. As a result, the improvements proposed in the Impact Fee Facility Plan will include capacity for growth beyond the 10-year planning window. To most accurately evaluate the cost of providing service for growth during the next ten years, added consideration has been given to evaluating how much of each improvement will be used in the next 10 years. This has been done following the same methodology as described above.

Basis of Construction Cost Estimates

The costs of construction for projects to be completed within ten years have been estimated based on past BC&A experiences with projects of a similar nature. Pipeline project costs are based on average per foot costs for pipes of a similar nature. Lift Station project costs include consideration of other components of the sanitary sewer system including manholes and surface restoration as appropriate for each project. Details of the cost estimates can be found in the City's 2021 Sewer Study.

ADDITIONAL CONSIDERATIONS

MANNER OF FINANCING – Utah Code Annotated 11-36a-302(2)

The City may fund the infrastructure identified in this IFFP through a combination of different revenue sources.

Federal and State Grants and Donations

West Point City is pursuing grant donations but have not secured any at this time. Impact fees cannot reimburse costs funded or expected to be funded through federal grants and other funds that the City has received for capital improvements without an obligation to repay. Grants and donations are not currently contemplated in this analysis. If grants become available for constructing facilities, impact fees will need to be recalculated and an appropriate credit given.

Bonds

None of the costs contained in this IFFP include the cost of bonding. The cost of bonding required to finance impact fee eligible improvements identified in the IFFP may be added to the calculation of the impact fee. This will be considered in the impact fee analysis.

User Rate Revenue

Because infrastructure must generally be built ahead of growth, there often arises situations in which projects must be funded ahead of expected impact fee revenues. In some cases, the solution to this issue will be bonding. In others, funds from existing user rate revenue will be used to complete initial construction of impact fee eligible projects and will be reimbursed later as impact fees are received. Consideration of potential use of user rate revenue to pay for impact fee eligible expenditures will be included in the impact fee analysis and should also be considered in subsequent accounting of impact fee expenditures.

Impact Fees

It is recommended that impact fees be used to fund growth-related capital projects as they help to maintain the proposed level of service and prevent existing users from subsidizing the capital needs for new growth. Based on this IFFP, an impact fee analysis will be able to calculate a fair and legal fee that new growth should pay to fund the portion of the existing and new facilities that will benefit new development.

Developer Dedications and Exactions

Developer exactions are not the same as grants. Developer exactions may be considered in the inventory of current and future infrastructure. If a developer constructs facilities or dedicates land within the development for the construction of facilities identified in this IFFP, the value of the dedication is credited against that particular developer's impact fee liability.

If the value of the dedication/exaction is less than the development's impact fee liability, the developer will owe the balance of the liability to the City. If the value of the improvements dedicated is worth more than the development's impact fee liability, the City must reimburse the difference to the developer from impact fee revenues collected from other developments.

It should be emphasized that the concept of impact fee credits pertains to system level improvements only. For project level improvement (i.e. projects not identified in the Impact Fee Facility Plan),

developers will be responsible for the construction of the improvements without credit against the impact fee.

NECESSITY OF IMPROVEMENTS TO MAINTAIN LEVEL OF SERVICE - Utah Code Annotated 11-36a-302(3)

According to State statute, impact fees cannot be used to correct deficiencies in the City's system and must be necessary to maintain the proposed level of service established for all users. Only those facilities or portions of facilities that are required to maintain the proposed level of service for future growth have been included in this IFFP. This will result in an equitable fee as future users will not be expected to fund any portion of the facilities that will benefit existing residents.

SCHOOL RELATED INFRASTRUCTURE - Utah Code Annotated 11-36a-302(2)

As part of the noticing and data collection process for this plan, information was gathered regarding future school District and charter school development. The locations of schools are unknown; however, the study did account for 3 schools within the study area. Where the City is aware of the planned location of a school, required public facilities to serve the school have been included in the Impact Fee Facility Plan.

NOTICING AND ADOPTION REQUIREMENTS - Utah Code Annotated 11-36a-502

The Impact Fees Act requires that entities must publish a notice of intent to prepare or modify any IFFP. If an entity prepares an independent IFFP rather than include a capital facilities element in the general plan, the actual IFFP must be adopted by enactment. Before the IFFP can be adopted, a reasonable notice of the public hearing must be published in a local newspaper at least 10 days before the actual hearing. A copy of the proposed IFFP must be made available in each public library within the City during the 10-day noticing period for public review and inspection. Utah Code requires that the City must post a copy of the ordinance in at least three places or on the City's website. These places may include the City offices and the public libraries within the City's jurisdiction. Following the 10-day noticing period, a public hearing will be held, after which the City may adopt, amend and adopt, or reject the proposed IFFP.

IMPACT FEE CERTIFICATION - Utah Code Annotated 11-36a-306(1)

This IFFP has been prepared in accordance with Utah Code Annotated Title 11, Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to the imposition of impact fees in Utah. The accuracy of this IFFP relies in part upon planning, engineering, and other source data, provided by the City and its designees.

In accordance with Utah Code Annotated, 11-36a-306(1), Bowen Collins & Associates makes the following certification:

I certify that the attached Impact Fee Facilities Plan:

1. Includes only the costs of public facilities that are:
    a. allowed under the Impact Fees Act; and
    b. actually incurred; or
    c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. Does not include:
    a. costs of operation and maintenance of public facilities;
    b. cost for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; or
    c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. Complies in each and every relevant respect with the Impact Fees Act.

Keith Larson, P.E.

SEWER IMPACT FEE ANALYSIS

SEPTEMBER 2021

Prepared for:

Prepared by:

BOWEN COLLINS & ASSOCIATES

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EXECUTIVE SUMMARY
SEWER IMPACT FEE ANALYSIS

The purpose of the impact fee analysis (IFA) is to calculate the allowable impact fee that may be assessed to new development in accordance with Utah Code.

WHY ASSESS AN IMPACT FEE?

Until development utilizes the full capacity of existing facilities, West Point City can assess an impact fee to recover its cost of latent capacity available to serve future development. The general impact fee methodology divides the available capacity of existing and future capital projects between the number of existing and future users. Capacity is measured in terms of Equivalent Residential Units, or ERUs, which represents the demand that a typical single-family residence places on the system.

HOW ARE IMPACT FEES CALCULATED?

A fair impact fee is calculated by dividing the cost of existing and future facilities by the amount of new growth that will benefit from the unused capacity. Only the capacity that is needed to serve the projected growth within in the next ten years is included in the fee. Costs used in the calculation of impact fees include:

- New facilities required to maintain (but not exceed) the proposed level of service in the system; only those expected to be built within ten years are considered in the final calculations of the impact fee.
- Historic costs of existing facilities that will serve new development
- Cost of professional services for engineering, planning, and preparation of the Impact Fee Facilities Plan and impact fee analysis

Costs not used in the impact fee calculation

- Operational and maintenance costs
- Cost of facilities constructed beyond 10 years
- Cost associated with capacity not expected to be used within 10 years
- Cost of facilities funded by grants, developer contributions, or other funds which West Point City is not required to repay
- Cost of renovating or reconstructing facilities which do not provide new capacity or needed enhancement of services to serve future development

IMPACT FEE CALCULATION

Impact fees for this analysis were calculated by dividing the proportional cost of facilities required to service 10-year growth by the amount of growth expected over the next 10-years based on ERUs. This is done for all of the needed gravity collection, lift station, and force main facilities within the study area. Calculated impact fees by component are summarized in Table ES-1.

Table ES-1
Impact Fee Calculation per ERU – West Point City Service Area

System Components	Total Cost of Component	% Serving 10-year Growth	Cost Serving 10-year Growth	10-year ERUs Served	Cost Per ERU
Collection Facilities					
10-Year Projects	$ 15,784,110	24.5%	$ 3,870,251	1049	$ 3,689
10-Year Project Interest Costs	$ 6,760,806	24.5%	$ 1,657,744	1049	$ 1,580
Credit for User Fees Paid Toward Existing					$ (128.96)
Subtotal	$ 22,544,916		$ 5,527,995		$ 5,141
Studies					
All Studies	$ 65,300	96.3%	$ 62,867	1049	$ 59.93
TOTAL	$ 22,610,216		$ 5,590,862		$ 5,201

RECOMMENDED IMPACT FEE

The total calculated impact fees are summarized in Table ES-2. Included in this table is the appropriate user fee credit and corresponding overall fee. The calculated user fee credit associated with the impact fees will decrease over time. As a result, the allowable impact fee will increase over time as shown in the table. This is the legal maximum amount that may be charged as an impact fee. A lower amount may be adopted if desired, but a higher fee is not allowable under the requirements of Utah Code.

Table ES-2
Recommended Per ERU Impact Fee – West Point City Service Area

Maximum Allowable Impact Fee (Per ERU, by year)						
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Base Impact Fee (includes study costs)	$ 5,329.71	$ 5,329.71	$ 5,329.71	$ 5,329.71	$ 5,329.71	$ 5,329.71
User Fee Credit	$ (128.96)	$ (122.73)	$ (116.80)	$ (111.16)	$ (105.78)	$ (100.67)
Total Overall Fee	$ 5,200.74	$ 5,206.97	$ 5,212.90	$ 5,218.55	$ 5,223.92	$ 5,229.04

IMPACT FEE ANALYSIS (SEWER)

INTRODUCTION

West Point City has retained Bowen Collins & Associates (BC&A) to prepare an impact fee analysis (IFA) for its sewer system based on a recently completed impact fee facilities plan. An impact fee is a one-time fee, not a tax, imposed upon new development activity as a condition of development approval to mitigate the impact of the new development on public infrastructure. The purpose of an IFA is to calculate the allowable impact fee that may be assessed to new development in accordance with Utah Code.

Service Areas

The service area for the IFA is defined as the same study area as the IFFP and the 2021 Sewer Study. The current study area includes areas not served by the sewer system currently within West Point City and nearby unincorporated areas of Davis County that may potentially be annexed by West Point City in the future. Generally, the service area is defined on the west by the Great Salt Lake floodplain boundary (officially the 4,217 contour), on the north by the Weber/Davis County line, on the east by the proposed West Davis Corridor, and the south does not extend further south than 500 N (see Figure 1). This study area will be treated as a single service area for the calculation of the Impact Fee. The remainder of the City will not be impacted by this new Impact Fee Study.

Requirements

Requirements for the preparation of an IFA are outlined in Title 11, Chapter 36a of the Utah Code (the Impact Fees Act). Under these requirements, an IFA shall accomplish the following for each facility:

1. Identify the impact of anticipated development activity on existing capacity
2. Identify the impact of anticipated development activity on system improvements required to maintain the established level of service
3. Demonstrate how the impacts are reasonably related to anticipated development activity
4. Estimate the proportionate share of:
    a. Costs of existing capacity that will be recouped
    b. Costs of impacts on system improvements that are reasonably related to the new development activity
5. Identify how the impact fee was calculated
6. Consider the following additional issues
    a. Manner of financing improvements
    b. Dedication of system improvements
    c. Extraordinary costs in servicing newly developed properties
    d. Time-price differential

The following sections of this report have been organized to address each of these requirements.

IMPACT ON SYSTEM - 11-36A-304(1)(A)(B)

Growth within West Point City's service area, and projections of sewer flows resulting from said growth is discussed in detail in the City's Impact Fee Facilities Plan. For the purposes of impact fee calculation, growth in the system has been expressed in terms of equivalent residential units (ERUs). An ERU represents the demand that a typical single-family residence places on the system. Growth in ERUs projected for the service area is summarized in Table 1.

Table 1
Projected West Point Water Sewer System Growth – Flow ERUs

Year	Connected Service Area ERUs	Estimated Dry Weather Sewer Flows (MGD)
2021	0	0.00
2031	1,049	0.27
2041	2,098	0.53
2051	3,147	0.80
2061	4,196	1.07
2066	4,721	1.20

As indicated in the table, projected growth for the 10-year planning window of this impact fee analysis is 1,049 ERUs or about 105 ERUs per year. New facilities will be constructed to increase capacity to meet the needs of future projected growth. These required system improvements are detailed in the Impact Fee Facilities Plan.

RELATION OF IMPACTS TO ANTICIPATED DEVELOPMENT - 11-36A-304(1)(C)

To satisfy the requirements of state law, it is necessary to show that all impacts identified in the impact fee analysis are reasonably related to the anticipated development activity. This has been documented in detail in the Impact Fee Facilities Plan. In short, only that capacity directly associated with demand placed upon existing system facilities by future development has been identified as an impact of the development. The steps completed to identify the impacts of anticipated development are as follows.

1. **Existing Demand** – There is no existing demand that will be placed on the City's system level sewer system. The existing ERUs in the study area will connect to the system as it becomes available but is largely currently being served by individual septic systems. There is one small subdivision (Sunview Estates) within the study area this is currently being constructed and will be serviced by a temporary lift station, that will eventually be replaced by a regional lift station. As this development is not currently complete (as of this study), it was assumed that 15 out of the 30 possible units would be existing for the purposes of the Impact Fee calculations.
2. **Existing Capacity** – There is no existing system level capacity, as the City currently has no existing system level collection system facilities within the study area.
3. **Existing Deficiencies** – There is no existing deficiencies, as the existing ERUs are serviced by individual septic tanks or a temporary lift station.
4. **Future Demand** - The demand future development will place on the system was estimated based on development projections as discussed in the Impact Fee Facilities Plan.

5. **Future Deficiencies** – There will be no future deficiencies within the study area because the sewer system will be initially built for build-out conditions.
6. **Recommended Improvements** – Needed system improvements were identified to meet demands associated with future development.

Proportionate Share Analysis – 11 – 36A-304(D)

A comprehensive proportionate share analysis associated with anticipated future development and its impact on the system was completed as part of the Impact Fee Facilities Plan. A summary of that analysis is contained here with additional discussion of the costs of facilities impacted by growth.

Excess Capacity to Accommodate Future Growth

There is no existing sewer collection service within the West Point City study area. This means that there is no excess capacity in the current system to accommodate for future growth. The residents in the area rely on septic systems for the disposal of wastewater. The needs of projected future growth will be met solely through construction of additional capacity in new facilities.

Existing System Infrastructure Costs

West Point City currently has no existing infrastructure costs; the city currently has no existing sewer collection system in the study area.

Reimbursement Agreements

There are no current reimbursement agreements existing within West Point City's system that have not already been accounted for in the existing infrastructure analysis.

Future Improvements

All demand within the study area associated with projected future development will be met through the construction of additional capacity in new facilities. A primary focus of the Impact Fee Facilities Plan was the identification of projects required to serve new development. The results of the Impact Fee Facilities Plan are summarized in Table 2. Included in the table are the costs of each required project and the portion of costs associated with development for the 10-year planning window. All cost estimates contained in this IFA have been taken directly from the IFFP. The basis of these estimates is documented in the IFFP.

Table 2
Impact Fee Eligible Capital Projects

Project ID	Year	Project Location	Contributing Areas	Project	Total Project Cost	Percent to 10-Year Growth	Cost to 10-Year Growth
Gravity Line Projects							
1 & 10	2021	6	1, 2, 4, 5 & 6	5000 W: 30-inch PVC Sewer Pipeline & Drainage Pipe Loops	$ 1,480,275	17.9%	$ 264,969
2	2021	4	1, 2 & 4	5000 W: 24-inch PVC Sewer Pipeline	$ 1,560,600	15.5%	$ 241,893
3	2021	8	7 & 8	Clinton Drain Crossing: 12-inch PVC Sewer Pipeline(deeper excavation)	$ 461,700	33.2%	$ 153,284
4	2021	5	5	1800 N: 12-inch PVC Sewer Pipeline	$ 719,550	32.2%	$ 231,696
5	2021	4	4	2425 N: 10-inch PVC Sewer Pipeline	$ 518,805	34.0%	$ 176,394
6	2021	4,5,6, & 8	1, 2, 4, 5, 6, 7 & 8	Sewer Manholes (assumed standard 5-foot diameter) Area 4, 5, 6, and 8 Only	$ 388,800	20.3%	$ 78,926
7	2021	4,5, & 6	1, 2, 4, 5 & 6	Asphalt Replacement for Gravity Sewer Pipelines in Areas 4, 5, and 6 only	$ 1,076,040	17.9%	$ 192,611
11	2021	4 & 5	1, 2 & 4	24-inch Pipe Bridge (80' bridge)	$ 337,500	15.5%	$ 52,313
12	2021	7 & 8	7 & 8	Steel Casing (Clinton Drain)	$ 119,475	33.2%	$ 39,665
13	2026	2	2	1925 N: 18-inch PVC Sewer Pipeline (deeper excavation)	$ 668,250	24.3%	$ 162,385
14	2026	2	2	5500 W: 15-inch PVC Sewer Pipeline (deeper excavation)	$ 1,205,820	24.3%	$ 293,014
15	2026	2	2	Asphalt Replacement for Gravity Sewer Pipelines in Area 2 Only	$ 388,080	24.3%	$ 94,304
16	2026	2	2	Sewer Manholes(assumed standard 5-foot diameter) Area 2 Only	$ 142,560	24.3%	$ 34,642
				Subtotal	$ 9,067,455		$ 2,016,096
Lift Stations & Force Mains Projects							
8	2021	7 & 8	7 & 8	Lift Station (0.7 MGD)	$ 1,559,250	33.2%	$ 517,671
9	2021	7 & 8	7 & 8	FM: 6-inch Force Main - (DR11 HDPE) w/ Asphalt	$ 583,200	33.2%	$ 193,622
17	2026	2	2	Area 2 Lift Station (1.0 MGD)	$ 2,338,875	24.3%	$ 567,721
18	2026	2	2	Area 2 FM: 8-inch Force Main - (DR11 HDPE) w/ Asphalt	$ 672,030	24.3%	$ 163,123
19	2031	3	3	Area 3 Lift Station (0.6 MGD)	$ 1,336,500	26.4%	$ 352,243
20	2031	3	3	Area 3 FM: 6-inch Force Main - (DR11 HDPE) w/ Asphalt	$ 226,800	26.4%	$ 59,775
				Subtotal	$ 6,716,655		$ 1,854,155
				Total	$ 15,784,110		$ 3,870,251

Planning and Impact Fee Studies

Utah Code allows for the cost of planning and engineering associated with impact fee calculations to be recovered as part of an impact fee. The final impact fee will include the cost of this study and recommended planning projects in the next ten years as summarized in Table 3.

Table 3
Impact Fee Costs Associated with Studies per ERU

System Components	Total Cost of Component	% Serving 10-Year Growth	Cost Serving 10-Year Growth	10-Year ERUs Served	Cost Per ERU
2021 Sewer Impact Fee Facility Plan & Sewer Study	$ 54,000	96.3%	$ 51,988	1,049	$ 49.56
2021 Impact Fee Analysis	$ 11,300	96.3%	$ 10,879	1,049	$ 10.37
Subtotal	$ 65,300		$ 62,867		$ 59.93

IMPACT FEE CALCULATION - 11-36A-304(1)(E)

Using the information contained in the previous sections, impact fees can be calculated by dividing the proportional cost of facilities required to service 10-year growth by the amount of growth expected over the next 10-years. Calculated impact fees by component are summarized in Table 4 for West Point City.

Table 4
Impact Fee Calculation per ERU – West Point City Service Area

System Components	Total Cost of Component	% Serving 10-year Growth	Cost Serving 10-year Growth	10-year ERUs Served	Cost Per ERU
Collection Facilities					
10-Year Projects	$ 15,784,110	24.5%	$ 3,870,251	1049	$ 3,689
10-Year Project Interest Costs	$ 6,760,806	24.5%	$ 1,657,744	1049	$ 1,580
Credit for User Fees Paid Toward Existing					$ (128.96)
Subtotal	$ 22,544,916		$ 5,527,995		$ 5,141
Studies					
All Studies	$ 65,300	96.3%	$ 62,867	1049	$ 59.93
TOTAL	$ 22,610,216		$ 5,590,862		$ 5,201

Bonding Interest Costs

In addition to construction costs, Table 4 includes the cost of bond interest expense where applicable. This includes both historic interest costs on existing facilities where new growth will benefit from excess capacity (does not apply to this specific IFA) and future interest costs for bonds required to build projects needed for growth as identified in the Impact Fee Facilities Plan. Similar to project construction costs, only that portion of interest expense associated with capacity for growth is

included in the impact fee calculation. In the case of West Point City's wastewater system, the following bonds were included in the study

- **Future 2021 Wastewater Bond** – This is the recommended bond that the City would need to fully fund the system level projects to service Areas 4, 5, 6, 7 and 8. For this study it was assumed that these projects would be fully funded through bonding. Based on guidance from the City, it is expected that this bond will be issued in 2021 or 2022 and would be a 20-year bond at 3.5 percent interest. This brings the total bond payment to $12,576,723. This was included in the table above and impact fee calculation.
- **Future 2026 Wastewater Bond** – This is the recommended bond that the City would need to fully fund the system level projects to service Area 2. For this study it was assumed that these projects would be fully funded through bonding. Based on guidance from the City, it is expected that this bond will be issued in 2026 or 2027 and would be a 20-year bond at 3.5 percent interest. This brings the total bond payment to $7,735,285. This was included in the table above and impact fee calculation.
- **Future 2031 Wastewater Bond** – This is the recommended bond that the City would need to fully fund the system level projects to service Areas 3. For this study it was assumed that these projects would be fully funded through bonding. Based on guidance from the City, it is expected that this bond will be issued in 2031 or 2032 and would be a 20-year bond at 3.5 percent interest. This brings the total bond payment to $2,232,908. This was included in the table above and impact fee calculation.

This equates to a total bond payment of $22,544,916.

Credit for User Fees

As currently structured, future users will pay for their portion of capacity via impact fees. They cannot also be expected to pay through user rates the portion of future bonds that will be used to build capacity for existing users. This creates the need for a credit for future users. Calculation of this credit is summarized in Table 5. These tables include the following information:

- **Existing Portion of Loan Paid Through User Fees** – This represents the total amount paid each year by West Point City toward the portion of any loans used to build capacity for existing users.
- **Cost Per ERU** – This column takes the total amount paid and divides it by the number of ERUs projected for each year. This represents the amount paid in each year by each ERU.
- **Present Value Cost per ERU** – This column takes into account the time value of money assuming a rate of return of 2 percent annually.
- **Total User Fee Credit** – At the bottom of the table, the present value costs for all future years are added together to develop the total user fee credit.

It will be noted that, because the user fee credit is the summation of user fees paid toward existing deficiencies in each year, a new user who joins the system in five or ten years will pay less in total user fees than someone who joins the system next year. Thus, the user fee credit will decrease over time. The appropriate user fee can be calculated by adding the present value cost for all years subsequent to a new user's connection to the system.

Table 5
Credit for User Fees Paid Toward Existing – West Point City Collection System

Year	West Point ERUs	Existing Capacity Portion of Loans Paid Through User Fees	Cost Per ERU	Present Value Cost Per ERU
2021	3579	n/a	n/a	n/a
2022	3687	$ 23,430	$ 6.36	$ 6.23
2023	3797	$ 23,430	$ 6.17	$ 5.93
2024	3911	$ 23,430	$ 5.99	$ 5.65
2025	4028	$ 23,430	$ 5.82	$ 5.37
2026	4149	$ 23,430	$ 5.65	$ 5.11
2027	4274	$ 37,841	$ 8.85	$ 7.86
2028	4402	$ 37,841	$ 8.60	$ 7.48
2029	4534	$ 37,841	$ 8.35	$ 7.12
2030	4670	$ 37,841	$ 8.10	$ 6.78
2031	4810	$ 37,841	$ 7.87	$ 6.45
2032	4955	$ 42,000	$ 8.48	$ 6.82
2033	5103	$ 42,000	$ 8.23	$ 6.49
2034	5256	$ 42,000	$ 7.99	$ 6.18
2035	5414	$ 42,000	$ 7.76	$ 5.88
2036	5576	$ 42,000	$ 7.53	$ 5.60
2037	5744	$ 42,000	$ 7.31	$ 5.33
2038	5916	$ 42,000	$ 7.10	$ 5.07
2039	6093	$ 42,000	$ 6.89	$ 4.83
2040	6276	$ 42,000	$ 6.69	$ 4.59
2041	6465	$ 42,000	$ 6.50	$ 4.37
2042	6658	$ 18,570	$ 2.79	$ 1.84
2043	6858	$ 18,570	$ 2.71	$ 1.75
2044	7064	$ 18,570	$ 2.63	$ 1.67
2045	7276	$ 18,570	$ 2.55	$ 1.59
2046	7494	$ 18,570	$ 2.48	$ 1.51
2047	7719	$ 4,160	$ 0.54	$ 0.32
2048	7951	$ 4,160	$ 0.52	$ 0.31
2049	8189	$ 4,160	$ 0.51	$ 0.29
2050	8435	$ 4,160	$ 0.49	$ 0.28
2051	8688	$ 4,160	$ 0.48	$ 0.26
Total User Fee Credit			$ 161.92	$ 128.96

Recommended Impact Fee

The total calculated impact fees are summarized in Table 6. Included in this table is the appropriate user fee credit and corresponding overall fee. This is the legal maximum amount that may be charged as an impact fee. A lower amount may be adopted if desired, but a higher fee is not allowable under the requirements of Utah Code.

Table 6
Recommended Per ERU Impact Fee – West Point City Service Area

Maximum Allowable Impact Fee (Per ERU, by year)						
	2022	**2023**	**2024**	**2025**	**2026**	**2027**
Base Impact Fee (includes study costs)	$ 5,329.71	$ 5,329.71	$ 5,329.71	$ 5,329.71	$ 5,329.71	$ 5,329.71
User Fee Credit	$ (128.96)	$ (122.73)	$ (116.80)	$ (111.16)	$ (105.78)	$ (100.67)
Total Overall Fee	$ 5,200.74	$ 5,206.97	$ 5,212.90	$ 5,218.55	$ 5,223.92	$ 5,229.04

As discussed previously, the calculated user fee credit associated with the impact fees will decrease over time. As a result, the allowable impact fee will increase over time as shown in the table. Impact fees beyond 2026 can be calculated by reducing the user fee credit by the amount shown for each successive year in Table 5.

Calculation of Non-Standard Impact Fees

The calculations above have been based on an ERU. The Impact Fee Enactment should include a provision that allows for calculation of a fee for customers other than typical residential connections. Consistent with the level of service standards established in the Impact Fee Facilities Plan, the following formula may be used to calculate an impact fee for a non-standard user based on the calculated daily indoor water use for an average residential connection[1].

$$\frac{Estimated\ Indoor\ Water\ Use}{220\ gallons\ per\ day} X\ Impact\ Fee\ per\ ERU = Impact\ Fee$$

Calculation all non-standard impact fees should be completed by City personnel using the formula above based on information regarding water use as provided for each non-standard use. This approach will be used for all commercial and industrial development.

[1] Based on average annual domestic water usage of 220 gpd/ERU and an average day maximum month flow of 240 gpd/ERU, this equates to a domestic wastewater production of 220 gpd/ERU. With an additional 35 gpd/ERU for I&I, total domestic wastewater flow is equal to 255 gpd/ERU, consistent with previous calculations.

ADDITIONAL CONSIDERATIONS - 11-36A-304(2)

MANNER OF FINANCING - 11-36A-304(2)(A-E)

As part of this impact fee analysis, it is important to consider how each facility has been or will be paid for. Potential infrastructure funding includes a combination of different revenue sources.

User Charges

Because infrastructure must generally be built ahead of growth, there often arises situations in which projects must be funded ahead of expected impact fee revenues. In some cases, the solution to this issue will be bonding. In others, funds from existing user rate revenue will be loaned to the impact fee fund to complete initial construction of the project and will be reimbursed later as impact fees are received. Interfund loans should be considered in subsequent accounting of impact fee expenditures.

Special Assessments

Where special assessments exist, the impact fee calculation must take into account funds contributed. No special assessments currently exist in the West Point City wastewater system.

Pioneering Agreements

Where pioneering agreements exist, the impact fee calculation must take into account payback requirements under each pioneering agreement. West Point City currently does not have any pioneering agreements.

Bonds

Where West Point City financial plans identify bonding will be required to finance impact fee eligible improvements, the portion of bond cost and interest expense attributable to future growth has been added to the calculation of the impact fee.

General Taxes

If taxes are used to pay for infrastructure, they should be accounted for in the impact fee calculation. Specifically, any contribution made by property owners through taxes should be credited toward their available capacity in the system. In this case, no taxes are proposed for the construction of infrastructure.

Federal and State Grants and Donations

West Point City is pursuing grant donations but have not secured any at this time. Impact fees cannot reimburse costs funded or expected to be funded through federal grants and other funds that the City has received for capital improvements without an obligation to repay. Grants and donations are not currently contemplated in this analysis. If grants become available for constructing facilities, impact fees will need to be recalculated and an appropriate credit given.

DEDICATION OF SYSTEM IMPROVEMENTS - 11-36A-304(2)(F)

Developer exactions are not the same as grants. If a developer constructs a system improvement or dedicates land for a system improvement identified in this IFFP or dedicates a public facility that is recognized to reduce the need for a system improvement, the developer may be entitled to an

appropriate credit against that particular developer's impact fee liability or a proportionate reimbursement.

If the value of the credit is less than the development's impact fee liability, the developer will owe the balance of the liability to West Point City. If the recognized value of the improvements/land dedicated is more than the development's impact fee liability, West Point City may be required to reimburse the difference to the developer.

It should be emphasized that the concept of impact fee credits pertains to system level improvements only. Developers will be responsible for the construction of project improvements (i.e. improvements not identified in the Impact Fee Facilities Plan) without credit against the impact fee.

EXTRAORDINARY COSTS - 11-36A-304(2)(G)

The Impact Fees Act indicates the analysis should include consideration of any extraordinary costs of servicing newly developed properties. In cases where one area of potential growth may cost significantly more to service than other growth, a separate service area may be warranted. No areas with extraordinary costs have been identified as part of this analysis.

TIME-PRICE DIFFERENTIAL - 11-36A-304(2)(H)

Utah Code allows consideration of time-price differential in order to create fairness for amounts paid at different times. To address time-price differential, this analysis includes a conversion to present value cost for future expenditures. In the case of future construction costs, it has been assumed that the return rate on investment will be roughly equivalent to construction inflation and current construction estimates have been used in the calculation of impact fees. Per the requirements of the Code, existing infrastructure cost is based on actual historical costs without adjustment.

IMPACT FEE CERTIFICATION - 11-36A-306(2)

This report has been prepared in accordance with Utah Code Title 11, Chapter 36a (the "Impact Fees Act"), which prescribes the laws pertaining to the imposition of impact fees in Utah. The accuracy of this IFFP relies in part upon planning, engineering, and other source data, provided by West Point City and its designees.

In accordance with Utah Code Annotated, 11-36a-306(2), Bowen Collins & Associates makes the following certification:

I certify that the attached impact fee analysis:

1. Includes only the costs of public facilities that are:
    a. allowed under the Impact Fees Act; and
    b. actually incurred; or
    c. projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. Does not include:
    a. costs of operation and maintenance of public facilities;
    b. costs of qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; or
    c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and the methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. Complies in each and every relevant respect with the Impact Fees Act.

Keith J. Larson, P.E.

OGDEN, UTAH OFFICE
2036 LINCOLN AVENUE
SUITE 104
OGDEN, UTAH 84401
PHONE: 801.495.2224

DRAPER, UTAH OFFICE
154 E 14075 S
DRAPER, UTAH 84020
PHONE: 801.495.2224

BOISE, IDAHO OFFICE
776 E RIVERSIDE DRIVE
SUITE 250
EAGLE, IDAHO 83616
PHONE: 208.939.9561

ST. GEORGE, UTAH OFFICE
20 NORTH MAIN
SUITE 107
ST.GEORGE, UTAH 84770
PHONE: 435.656.3299

BOWEN COLLINS & ASSOCIATES

WWW.BOWENCOLLINS.COM