IMPACT FEE FACILITIES PLAN - STORM DRAIN

Ogden Valley City

167 South 7500 East

Huntsville, Utah 84317

3/27/26

Prepared by:

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1 INTRODUCTION

1.1 Background

Ogden Valley City has prepared an Impact Fee Facilities Plan (IFFP) for its storm drain system, building upon the original storm drain master plan that was completed by Weber County in 2015 (county plan) as well as the IFFP prepared by CRS Engineers in 2017 (CRS, 2017). This new IFFP will not include hydraulic modeling or a detailed capacity analysis; instead, its purpose is to provide an update to the prior planning effort. The updated study will remove projects that have already been completed and update all associated cost estimates to 2026 dollars to ensure the plan reflects current conditions. Ogden Valley City retained J-U-B Engineers, Inc. to prepare the IFFP and Zions Public Finance, Inc to prepare the Impact Fee Analysis (IFA).

The Utah Code 11-36a-301 requires that a municipality "prepare an impact fee facilities plan to determine the public facilities required to serve development resulting from new development activity." Utah Code 11-36a defines the elements that are to be included within the IFFP. The IFFP must establish an existing level of service, identify capacity in existing facilities, and the demands placed on the systems from future growth. The city must then identify a future level of service, and the projects or improvements required to maintain that level of service.

1.2 Service Area

The study area for the IFFP encompasses the full boundary of the newly incorporated Ogden Valley City. This IFFP focuses exclusively on the areas within Ogden Valley City and does not include the town of Huntsville or unincorporated Weber County.

1.3 Projected Growth

Ogden Valley City anticipates continued growth over the next 10 years. The estimate used for this report comes from the Feasibility Study for The Proposed Incorporation of Ogden Valley which used the Utah Population Committee (UPC) for the 2023 estimated population. To determine the ten-year projected population the annual average growth rate (AAGR) was applied. With the 2023 cumulative population being a value of 7,583 persons, the AAGR between Census years was determined to be 1.7 percent. The AAGR was applied to subsequent years through 2036. The projected growth for the population is shown in Table 1.

Table 1. Ogden Valley City Projected Growth.

Year	Population
2023	7,583
2024	7,712
2025	7,843
2026	7,977
2027	8,113
2028	8,251
2029	8,391
2030	8,534
2031	8,679

2032	8,827
2033	8,977
2034	9,130
2035	9,285
2036	9,443

1.4 Demand Units

Weber County ordinances establish stormwater demand based on the amount of impervious surface area within a development. Impervious surfaces are man-made features that prevent water from infiltrating into the soil, including homes, parking lots, driveways, and roads. To quantify stormwater demand, Weber County uses an Equivalent Service Unit (ESU), which represents the impervious area of a typical single-family residence in the county. Based on county studies, one ESU is equal to 6,200 square feet of impervious surface area.

Table 2 summarizes the existing ESUs and projected ESUs for the 10-year planning period. ESU data was obtained from the Ogden Valley City Feasibility Study completed by LRB Public Finance Advisors in 2023. The study projects that Ogden Valley City will have 3,781 households in 2026, with an average of 2.11 persons per household. These values were used to correlate population projections with ESU estimates for the planning period. Table 2 summarizes the resulting population and ESU projections.

Table 2. Projected ESU Growth.

Year	Population	ESUs
2023	7,583	3,594
2024	7,712	3,655
2025	7,843	3,717
2026	7,977	3,781
2027	8,113	3,845
2028	8,251	3,910
2029	8,391	3,977
2030	8,534	4,045
2031	8,679	4,113
2032	8,827	4,183
2033	8,977	4,255
2034	9,130	4,327
2035	9,285	4,401
2036	9,443	4,475

2 UTAH CODE LEGAL REQUIREMENTS

Utah law requires that communities prepare an Impact Fee Facilities Plan (IFFP) before preparing an Impact Fee Analysis (IFA) and enacting an impact fee. Utah law also requires that communities give notice of their intent to prepare and adopt an IFFP. This IFFP follows all legal requirements as outlined below.

2.1 Notice of Intent to Prepare Impact Fee Facilities Plan

A local political subdivision must provide written notice of its intent to prepare an IFFP before preparing the Plan (Utah Code §11-36a-501). This notice must be posted on the Utah Public Notice website. The City has complied with this noticing requirement for the IFFP by posting notice.

2.2 Preparation of Impact Fee Facilities Plan

Utah Code requires that each local political subdivision, before imposing an impact fee, prepare an impact fee facilities plan. (Utah Code 11-36a-301).

Section 11-36a-302(a) of the Utah Code outlines the requirements of an impact fee facilities plan which is required to identify the following:

(i) identify the existing level of service

(ii) establish a proposed level of service

(iii) identify any excess capacity to accommodate future growth at the proposed level of service

(iv) identify demands placed upon existing facilities by new development activity at the proposed level of service; and

(v) identify the means by which the political subdivision or private entity will meet those growth demands.

Further, the proposed level of service may:

(i) exceed the existing level of service if, independent of the use of impact fees, the political subdivision or private entity provides, implements, and maintains the means to increase the existing level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service; or

(ii) establish a new public facility if, independent of the use of impact fees, the political subdivision or private entity provides, implements, and maintains the means to increase the existing 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 preparing an impact fee facilities plan, each local political subdivision shall generally consider all revenue sources to finance the impacts on system improvements, including:

(a) grants
(b) bonds
(c) interfund loans
(d) transfers from the General Fund
(e) impact fees; and
(f) anticipated or accepted dedications of system improvements.

2.3 Certification of Impact Fee Facilities Plan

Utah Code states that an impact fee facilities plan shall include a written certification from the person or entity that prepares the impact fee facilities plan. This certification is included at the conclusion of this analysis.

3 EXISTING LEVELS OF SERVICE

Utah Code 11-36a-302(1)(a)(i)

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

3.1 Existing Performance Standard

This study does not alter the storm drainage study assumptions that were outlined in the Weber County Drainage Design Criteria in Appendix D in the County Plan. The County has established an existing level of service to protect its residents and infrastructure from flooding. The design storm is used to define how much rainfall occurs and at what rate the rainfall is occurring. The design storm used in the County plan was the 10-year storm for the "Initial System" and the 100-year storm event for the "Major Systems."

The initial systems are summarized in the 2017 IFFP (CRS, 2017) are those components which provide protection against regularly recurring damage from storm runoff. These include curb and gutter, storm drain piping, and local detention ponds.

The major systems are summarized in the 2017 IFFP (CRS, 2017) are those components which provide protection against larger storm events. These include major channels, swales, culverts. Streets and regional retention or detention basins.

3.2 Storm Water Pipes

Stormwater pipes, including culverts, in the initial system are designed to convey a 10-year storm, as established in the Stormwater Master Plan (Hansen Allen Luce, 2015). Pipes in the major system are designed for the 100-year storm. The Master Plan identifies deficiencies in existing infrastructure. Storms exceeding pipe design capacity may cause surcharging and street flooding, which is accounted for in roadway design.

3.3 Detention Basins

Regional detention facilities are part of the Major system and are designed to detain 100-year storm flows per the CRS-prepared IFFP. Ogden Valley City currently only manages smaller localized detention basins, which were not included in the 2017 IFFP (CRS, 2017).

3.4 Storm Water Demand Per Acre

The 2017 IFFP (CRS, 2017) states that through County ordinances the county engineer may require developers to release stormwater at the predevelopment runoff conditions. This runoff rate has been determined as 0.10 CFS/acre. Future storm drain projects are sized to meet this release rate from new developments.

3.5 Existing Level of Service Summary

The existing level of service has been divided into three categories: Maximum allowable runoff, Pipe capacity, and regional detention basin capacity. The existing level of service values are summarized in Table 3.

Table 3: Existing Level of Service

Category	Existing Level of Service
Maximum allowable runoff	0.10 cfs per acre
Storm drain pipe capacity	10-year storm capacity for Initial systems and 100-year storm capacity for major systems
Regional detention basin capacity	100-year storm capacity

4 PROPOSED LEVELS OF SERVICE

Utah Code 11-36a-302(1)(a)(ii)

The proposed level of service is used to evaluate future needs of the system. Per the Impact Fee Act the "proposed level of service may diminish or equal the existing level of service" (Utah Code 11-36a-302(1)(b). A proposed level of service may "exceed the existing level of service if, independent of the use of impact fees, the political subdivision or private entity provides, implements, and maintains the means to increase the existing level of service for existing demand within six years of the date on which new growth is charged for the proposed level of service" (Utah Code 11-36a-302(1)(c)(i).

The proposed level of service is based on the master plan (Hansen Allen Luce, 2015) for the available pipe capacity, storm water flows, and detention requirements to meet future needs. The proposed level of service equals the existing level of service and is shown in table 4..

Table 4: Proposed Level of Service

Category	Existing Level of Service
Maximum allowable runoff	0.10 cfs per acre
Storm drain pipe capacity	10-year storm capacity for Initial systems and 100-year storm capacity for major systems
Regional detention basin capacity	100-year storm capacity

5 EXCESS CAPACITY TO ACCOMMODATE FUTURE GROWTH AT PROPOSED LEVELS OF SERVICE

Utah Code 11-36a-302(1)(a)(iii)

Excess capacity will be identified for each of the 4 areas analyzed. The projected number of ESUs in 2036 is 3336.75.

5.1 Excess Capacity Storm Drain

The excess capacity is the difference between the maximum drainage capacity that the city currently has and the current drainage demand. The 2017 IFFP (CRS, 2017) did not consider excess capacity due to the difficulty of determining actual costs that were incurred in the installation of existing infrastructure.

6 DEMANDS PLACED UPON EXISTING PUBLIC FACILITIES BY NEW DEVELOPMENT AT THE PROPOSED LEVEL OF SERVICE

Utah Code 11-36a-302(1)(a)(iv)

As discussed in section 1.3 Population Growth of this report Ogden Valley City is expected to grow at a rate of 1.7% for the next ten years. It is anticipated that an additional 701 ESUs will be added which adds 99.78 acres of impervious area from new development. This includes residential, commercial, open space, streets, parking lots, etc. Based on the level of service of discharge per acre. All acreage will contribute equally to the storm drain needs.

7 INFRASTRUCTURE REQUIRED TO MEET DEMANDS OF NEW GROWTH

Utah Code 11-36a-302(1)(a)(v)

To comply with the Impact Fee Act, the 2015 Master Plan (HAL, 2015) and the 2017 Impact Fee Facilities Plan (IFFP) (CRS, 2017) were reviewed to identify projects necessary to maintain the required level of service. Projects that had already been completed or fall outside the Ogden Valley City service area were excluded from this IFFP. Project that correct existing deficiencies have not been included. Project costs were updated by applying a construction Consumer Price Index to the 2017 cost estimates to approximate costs in 2026. A list of projects is outlined in Table 5 and a map of the proposed projects is found in Appendix A.

7.1 Ten Year Improvement Plan

In the 2015 Master Plan (HAL, 2015), projects were identified to provide service to protect the City from flooding. These projects were divided into capital facilities projects, impact fee eligible projects, and projects constructed by development. Capital facilities projects include the replacement of aging infrastructure and other projects not required by growth over the next 10 years and were assumed to be paid for by the existing residents. Impact fee eligible projects include infrastructure to be constructed within the next 10 years due to growth.

The costs of impact fee eligible projects have been broken down to show the percentage of project costs to existing, Cost to 10-year growth, and Cost beyond 10-year Growth. The project costs associated with “Cost 10-year Growth” were used in the impact fee analysis.

The construction costs have been taken from the 2017 Impact Fee Facilities Plan (CRS, 2017) as outlined above.

Table 5: Proposed Projects.

Project ID	Description	Location	Estimated Total Cost	% to Existing	Percent to 10-year Growth	Percent Beyond 10-year Growth	Cost to Existing	Cost to 10-year Growth	Cost Beyond 10-Year Growth
UV-01	Install 36" Culvert	950 S 6800 E	$ 28,000.00	36%	26%	38%	$ 10,080.00	$ 7,280.00	$ 10,640.00
UV-04	Increase Capacity along Drainage Channel	2950 E to Chicken Creek along 4100 N	$ 413,000.00	33%	28%	39%	$ 136,290.00	$ 115,640.00	$ 161,070.00
UV-05	Install (2) 8'X8' Box Culverts	6825 N Durfee Creek Rd	$ 208,000.00	56%	19%	25%	$ 116,480.00	$ 39,520.00	$ 52,000.00
UV-07	Install Drainage for neighborhood	2875 N 4975 E	$ 433,000.00	53%	20%	27%	$ 229,490.00	$ 86,600.00	$ 116,910.00
UV-10	Install (4) Box Culverts	Shaw Drive	$ 279,000.00	67%	14%	19%	$ 186,930.00	$ 39,060.00	$ 53,010.00
UV-15	Install (3) Box Culverts	3700 N Channel	$ 221,000.00	67%	14%	19%	$ 148,070.00	$ 30,940.00	$ 41,990.00
UV-16	Install 72" Culvert	3500 E Holmes-Ferrin Ditch	$ 101,000.00	33%	28%	39%	$ 33,330.00	$ 28,280.00	$ 39,390.00

Project ID	Description	Location	Estimated Total Cost	% to Existing	Percent to 10-year Growth	Percent Beyond 10-year Growth	Cost to Existing	Cost to 10-year Growth	Cost Beyond 10-Year Growth
UV-18	Increase Capacity along Drainage Channel	Pole Canyon Drainage Path	$ 311,000.00	83%	7%	10%	$ 258,130.00	$ 21,770.00	$ 31,100.00
UV-26	Increase Capacity along Drainage Channel	3925 N Patiosprings DR	$ 540,000.00	67%	14%	19%	$ 361,800.00	$ 75,600.00	$ 102,600.00
UV-28	Install (2) Box Culverts	Creek View Dr	$ 159,000.00	58%	19%	23%	$ 92,220.00	$ 30,210.00	$ 36,570.00
UV-34	Install (2) Box Culverts	5100 E Willowbrook Lane	$ 528,000.00	58%	19%	23%	$ 306,240.00	$ 100,320.00	$ 121,440.00
UV-35	Increase Capacity along Drainage Channel	5600 E to Eagle Crest Court	$ 595,000.00	62%	17%	21%	$ 368,900.00	$ 101,150.00	$ 124,950.00
UV-36	Install 72" Culvert	4480 N Sheep Creek Drive	$ 90,000.00	39%	27%	34%	$ 35,100.00	$ 24,300.00	$ 30,600.00
UV-37	Increase Capacity along Drainage Channel	5100 N 3550 E	$ 1,211,000.00	67%	14%	19%	$ 811,370.00	$ 169,540.00	$ 230,090.00

Project ID	Description	Location	Estimated Total Cost	% to Existing	Percent to 10-year Growth	Percent Beyond 10-year Growth	Cost to Existing	Cost to 10-year Growth	Cost Beyond 10-Year Growth
UV-41	Install 48" Culvert	1100 N 7800 E	$ 35,000.00	18%	35%	47%	$ 6,300.00	$ 12,250.00	$ 16,450.00
UV-44	Install (3) Box Culverts	5950 N North Fork Ogden River	$ 264,000.00	67%	14%	19%	$ 176,880.00	$ 36,960.00	$ 50,160.00
UV-45	Install (2) Culverts	3250 E 4800 N	$ 56,000.00	33%	28%	39%	$ 18,480.00	$ 15,680.00	$ 21,840.00
UV-46	Install 30" Culvert; Channel Upgrades	4650 N 3300 E	$ 21,000.00	33%	28%	39%	$ 6,930.00	$ 5,880.00	$ 8,190.00
UV-48	Install 48" Culvert; Channel Upgrades	3700 N 2900 E	$ 42,000.00	33%	28%	39%	$ 13,860.00	$ 11,760.00	$ 16,380.00
UV-49	Install 30" Culvert	3350 N 2900 E	$ 34,000.00	33%	28%	39%	$ 11,220.00	$ 9,520.00	$ 13,260.00
UV-50	Install (2) Culverts	3930 N 2900 E and 4000 N 3300 E	$ 36,000.00	33%	28%	39%	$ 11,880.00	$ 10,080.00	$ 14,040.00
UV-51	Install 30" Culvert	4100 N 3800 E	$ 137,000.00	67%	14%	19%	$ 91,790.00	$ 19,180.00	$ 26,030.00
UV-52	Install (3) 48" Culverts	Nordic Valley Road 3850 E	$ 104,000.00	83%	7%	10%	$ 86,320.00	$ 7,280.00	$ 10,400.00

Project ID	Description	Location	Estimated Total Cost	% to Existing	Percent to 10-year Growth	Percent Beyond 10-year Growth	Cost to Existing	Cost to 10-year Growth	Cost Beyond 10-Year Growth
UV-60	Install 8' X 8' Box Culvert	Snowflake Drive and Powder Mountain Road	$ 103,000.00	50%	25%	25%	$ 51,500.00	$ 25,750.00	$ 25,750.00
UV-63	Install 18" Culvert	3100 N 3500 E	$ 14,000.00	83%	7%	10%	$ 11,620.00	$ 980.00	$ 1,400.00
UV-64	Install 30" Culvert	5800 E 2200 N	$ 24,000.00	42%	24%	34%	$ 10,080.00	$ 5,760.00	$ 8,160.00
UV-68	Install (2) 30" Culverts	5300 E Elkhorn Drive	$ 83,000.00	62%	17%	21%	$ 51,460.00	$ 14,110.00	$ 17,430.00
UV-72	Reroute culvert	Earl Chambers Residence	$ 28,000.00	88%	5%	7%	$ 24,640.00	$ 1,400.00	$ 1,960.00
UV-73	Install Culvert	3300 E Chicken Creek	$ 28,000.00	33%	28%	39%	$ 9,240.00	$ 7,840.00	$ 10,920.00
UV-74	Install Culverts	Avon Divide	$ 54,000.00	56%	19%	25%	$ 30,240.00	$ 10,260.00	$ 13,500.00
UV-75	Install Culvert	3804 E 2050 N	$ 16,000.00	83%	7%	10%	$ 13,280.00	$ 1,120.00	$ 1,600.00
UV-76	Upsize Pipe to 24"	3500 E Across from Nordic Valley	$ 25,000.00	83%	7%	10%	$ 20,750.00	$ 1,750.00	$ 2,500.00

Project ID	Description	Location	Estimated Total Cost	% to Existing	Percent to 10-year Growth	Percent Beyond 10-year Growth	Cost to Existing	Cost to 10-year Growth	Cost Beyond 10-Year Growth
UV-77	Install Pipes	Along 4650 E near 4400 E	$ 317,000.00	67%	14%	19%	$ 212,390.00	$ 44,380.00	$ 60,230.00
UV-78	Upsize Pipe at Sheep Creek Ph. 2&3	4600 N Sheep Creek Drive	$ 28,000.00	39%	27%	34%	$ 10,920.00	$ 7,560.00	$ 9,520.00
UV-79	Continue 36" Pipe	2300 N 5400 W	$ 1,470,000.00	42%	24%	34%	$ 617,400.00	$ 352,800.00	$ 499,800.00
UV-80	Increase Capacity; Regional Detention	2625 N Sierra Drive	$ 110,000.00	42%	24%	34%	$ 46,200.00	$ 26,400.00	$ 37,400.00
UV-81	Increase capacity	Elkhorn Drive and Elkview Drive	$ 110,000.00	62%	17%	21%	$ 68,200.00	$ 18,700.00	$ 23,100.00
UV-82	Upsize Culverts	Juniper Lane and N. Powder Mountain Road	$ 82,000.00	58%	19%	23%	$ 47,560.00	$ 15,580.00	$ 18,860.00
Totals			**$ 8,338,000.00**				**$ 4,743,570.00**	**$ 1,533,190.00**	**$ 2,061,240.00**

8 CONSIDERATION OF REVENUE SOURCES TO FINANCE IMPACTS ON IMPROVEMENTS

Utah Code 11-36a-302(2)

This Impact Fee Facilities Plan includes a discussion of potential revenues sources for the storm drain system. These revenue sources include grants, bonds, interfund loans, transfers from the General Fund, impact fees and anticipated or accepted dedications of system improvements.

8.1 Grants

Impact fees may not reimburse projects funded through grants. Grants for storm drain improvements are not very common in Utah. As a result, no grants have been included in the project costs. If grants are received, costs will be adjusted accordingly.

8.2 Bonds

The City could issue bonds in the future in order to fund necessary storm drain system improvements. No bonds are planned and therefore no costs associated with bond issuance have been included in the calculation of impact fees.

8.3 Impact Fees

Impact fees are a viable means of allowing new development to pay for the impacts that it places on the existing system. This IFFP is developed in accordance with legal guidelines so that an Impact Fee Analysis for the storm drain system may be prepared and the City may charge impact fees. The establishment of an impact fee will prevent existing users from subsidizing new growth.

8.4 Anticipated or Accepted Dedications of System Improvements

Any item that a developer funds must be included in the IFFP if a credit against impact fees is to be issued and must be agreed upon with the City before construction of the improvements.

9 CERTIFICATIONS

This IFFP has been prepared in accordance with Utah Code Title 11 Chapter 36a, Impact Fee Act. In accordance with Utah Code Title 11-36a-306(1), J-U-B Engineers, Inc. makes the following certification.

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 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;
    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

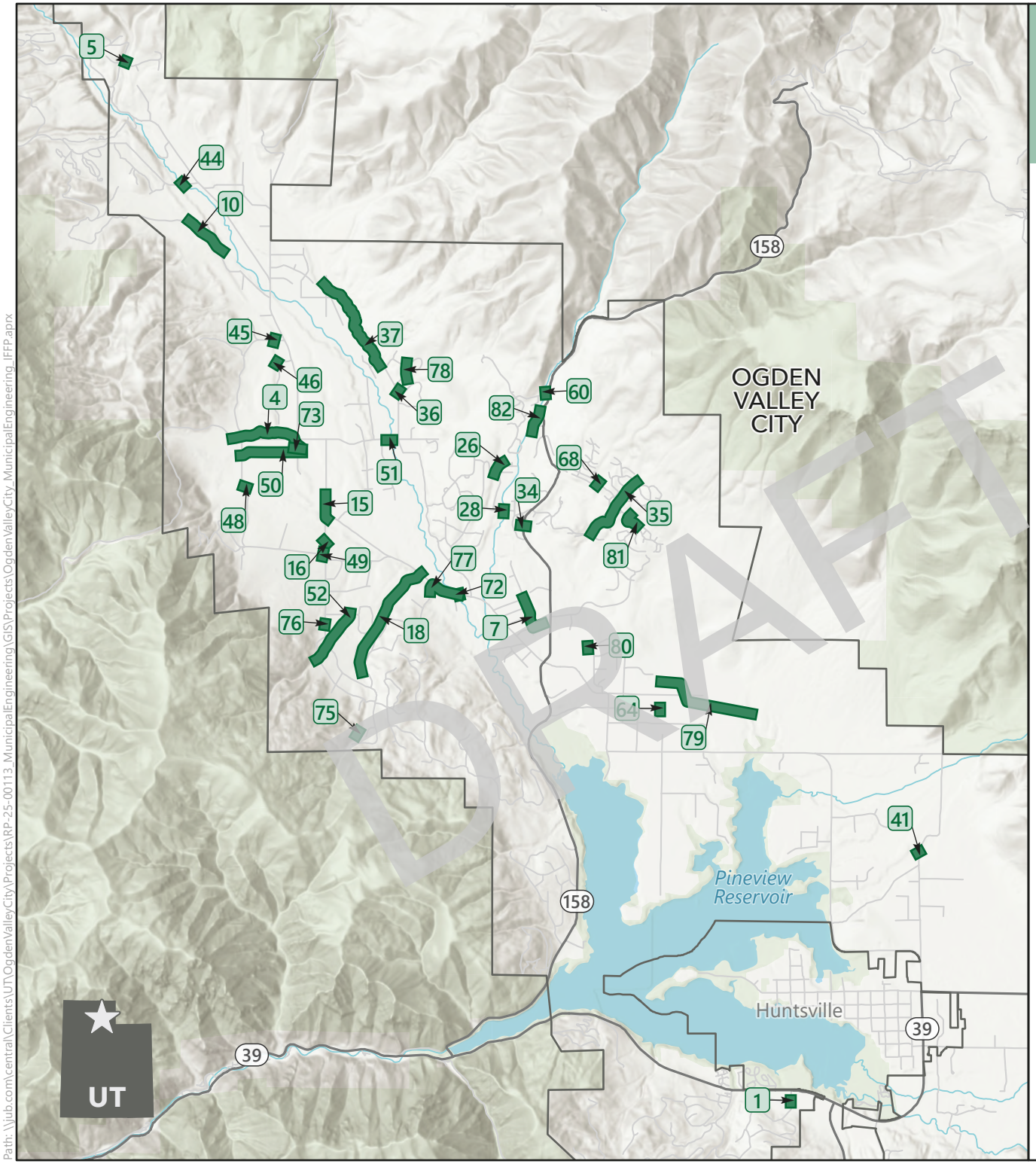
methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement;

3. Complies in each and every relevant respect with the Impact Fees Act.

Dated: March 27, 2026

J-U-B ENGINEERS, INC

APPENDIX A



STORM DRAIN PROJECTS

Ogden Valley City IFFP

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Miles

March 2026

Project	Description
UV-01	*36" Culvert*
UV-04	*Increase Channel Capacity*
UV-05	*(2) 8'X8' Box Culvert*
UV-07	*Drainage in Neighborhood*
UV-10	*(4) Box Culverts*
UV-15	*(3) Box Culverts*
UV-16	*72" Culvert*
UV-18	*Increase Channel Capacity*
UV-26	*Increase Channel Capacity*
UV-28	*(2) Box Culverts*
UV-34	*(2) Box Culverts*
UV-35	*Increase Channel Capacity*
UV-36	*72" Culvert*
UV-37	*Increase Channel Capacity*
UV-41	*48" Culvert*
UV-44	*(3) Box Culverts*

Project	Description
UV-45	*(2) Culverts*
UV-46	*30" Culvert*
UV-48	*48" Culvert*
UV-49	*30" Culvert*
UV-50	*(2) Culverts*
UV-51	*30" Culverts*
UV-52	*(3) 48" Culverts*
UV-60	*8'X8' Box Culvert*
UV-64	*30" Culvert*
UV-68	*(2) 30" Culverts*
UV-72	*Reroute Culvert*
UV-73	*Install Culvert*
UV-75	*Install Culvert*
UV-76	*Upsize Pipe to 24"*
UV-77	*Install Pipes*
UV-78	*Upsize Pipes*
UV-79	*Continue 36" Pipe*
UV-80	*Increase Capacity*
UV-81	*Increase Capacity*
UV-82	*Upsize Culverts*

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