



NIBLEY CITY COUNCIL MEETING AGENDA

Thursday, July 22, 2021 – 6:30 p.m.

In accordance with Utah Code Annotated 52-4-207 and Nibley City Resolution 12-04, this meeting may be conducted electronically. The anchor location for the meeting will be Nibley City Hall, 455 West 3200 South, Nibley, Utah. The public may also participate in the meeting via the Zoom meeting link provided at www.nibleycity.com. Public comment should be submitted to cheryl@nibleycity.com by 6:30 p.m. and will be read into the public record.

1. Opening Ceremonies (Councilmember Larsen)
2. Call to Order and Roll Call (Chair)
3. Approval of the July 8, 2021 Meeting Minutes and the Current Agenda (Chair)
4. Public Comment Period¹ (Chair)
5. Planning Commission Report
6. Introduction of Matt Whitaker, Administrator at Cache Community Food Pantry
7. **Discussion & Consideration** - Resolution 21-21: Adopting the 2021 Sewer Master Plan Update (First Reading)
8. **Workshop:** Discussion of Nuisance Violation & Enforcement Processes
9. **Discussion & Consideration** – Resolution 21-20: Amending Nibley City’s Consolidated Fee Schedule; Appeal and Variance Applications (Second Reading)
10. Council and Staff Report

In compliance with the Americans With Disabilities Act, reasonable accommodations for individuals with disabilities will be provided upon request. For assistance, please call (435) 752-0431.

¹ Public input is welcomed at all City Council Meetings. 15 minutes have been allotted to receive verbal public comment. Verbal comments shall be limited to 3 minutes per person. A sign-up sheet is available at the entrance to the Council Chambers starting 15 minutes prior to each council meeting and at the rostrum for the duration of the public comment period. Commenters shall identify themselves by name and address on the comment form and verbally for inclusion in the record. Comment will be taken in the order shown on the sign-up sheet. Written comment will also be accepted and entered into the record for the meeting if received prior to the conclusion of the meeting. Comments determined by the presiding officer to be in violation of Council meeting rules shall be ruled out of order.

² Items on the Consent Agenda are considered to be routine and/or non-controversial and will be approved in one vote.



Agenda Item #6

Description	Introduction of Matt Whitaker, Administrator at Cache Community Food Pantry
Presenter	Justin Maughan, City Manager
Recommendation	Listen to the presentation. Ask clarifying questions. Discuss.
Reviewed By	City Manager

Background:

In 1970, the Cache Community Food Pantry in partnership with the Bear River Association of Governments was created with the mission that no individual in Cache County goes to bed hungry. A strong belief in emergency assistance today for self-sufficiently tomorrow, has guided the organization into what it is today, and helped thousands of Cache Valley families through the years. On average the CCFP serves 165 families a week, in conjunction with supporting other organizations in the valley such as: senior citizen center, Bear River Mental Health, CAPSA, Common Ground and others. An interesting note about the CCFP, is that it is not a government agency. It is supported through private donations from the generosity of individuals and businesses in the community.

The CCFP has been expanding, and acquiring land around their current location to better serve the citizens of Cache Valley. The Director of the CCFP, Matt Whitaker would like to introduce himself and tell the Council a little bit more about what they do, and to encourage the Council to consider the CCFP for potential funds and/or donations from the City in the future.

Agenda Item #7

Description	Discussion and Consideration – Resolution 21-21: Adopting the 2021 Sewer Master Plan Update (First Reading)
Presenter	Justin Maughan, City Manager
Recommendation	Move to approve Resolution 21-21: Adopting the 2021 Sewer Mater Plan Update; and waive the second reading.
Reviewed By	Mayor, City Manager, Justin Pope

Background:

The Nibley City sewer system was constructed in 2003. At that time many assumptions were made about the amount of flow that the sewer needed to be designed and built for. Since that time, every 5 to 7 years the City conducts a Master Plan update, and undertakes a comprehensive review of the system to ensure that the system will function properly, and plan for upgrades that may be needed in the near future, as well as distant future. The Sewer Master Plan (SMP) was last updated was in 2014. There has been significant growth and added pressures to the sewer system since that time. Staff has spent the last couple of months consulting with JUB Engineers to complete an update of the SMP, and would like to present the Master Plan to the council for discussion, consideration and adoption.

RESOLUTION 21-21

A RESOLUTION ADOPTING 2021 SEWER MASTER PLAN UPDATE

WHEREAS, Utah law allows municipalities to create and plan for local infrastructure and utility needs; and

WHEREAS, Nibley City has established a Sewer collection system for its residents; and

WHEREAS, large areas of land around Nibley City are unincorporated and will likely develop in the future; and

WHEREAS, Nibley City anticipates population growth and greater demand placed on Nibley City's sewer system; and

WHEREAS, Nibley City wishes to update the Sewer Master Plan to plan for future growth within Nibley City.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF NIBLEY CITY, STATE OF UTAH, AS FOLLOWS:

1. That the attached 2021 Sewer Master Plan is adopted by the Nibley City Council.

Dated this _____ day of _____, 2021

Shaun Dustin, Mayor

ATTEST

Cheryl Bodily, City Recorder

2021 SEWER COLLECTION SYSTEM MASTER PLAN UPDATE

June 2021

(Adopted by City Council XXXXXXXX, 2021)



Prepared For:

Nibley City Corporation.
455 West 3800 South
Nibley, UT 84321



Prepared By:

J-U-B ENGINEERS, Inc.
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EXECUTIVE SUMMARY

The Nibley City sewer collection system was installed in 2003. In 2014 the city completed a sewer collection system master plan and desired to create this update for many reasons including:

- The City is growing significantly
- Landuse densities have increased in many areas of the City
- An update to the sewer collection impact fees is needed

The City hired J-U-B to update the master plan based on unit flows that were identified in 2014 plan and the new planned densities. The update process included the following tasks:

- Add new units that have been connected to the system since 2014.
- Evaluate the existing system to determine the current capacity status.
- Update future population growth projections based on data from the Kem C. Gardner Policy Institute.
- Identify any existing system deficiencies.
- Identify Capital Facility Projects (CFPs) needed prior to 2031 and between 2031 and buildout.
- Update the master planned conceptual sewer trunk line system to serve the undeveloped areas of the city up to the time that the area within the study area boundary built-out.
- Prepare a collection system Impact Fee Facility Plan (IFFP) to be used for the updated Impact Fee Assessment (IFA).

The following overall conclusions and recommendations are based on the assumptions and results of the plan:

- **Existing Capacity**
 - **Conclusion** – The existing system has no deficiencies based on the results of the modeling and the established the Level of Service (LOS) for pipes and lift stations.
 - **Recommendation** – Continue to inspect the system for sources of infiltration and inflow and eliminate those sources.
- **Reserve Capacity for Future Equivalent Residential Units (ERU's)**
 - **Conclusion** - All of the existing collection lines can serve approximately 400 or more additional ERU's. Figure 4 lists the approximate number of additional ERU's that can be added upstream of major trunkline intersections.
 - **Recommendations** - Require an update to the existing sewer model to verify that there is adequate capacity prior to permitting each new development. Track the number of new ERU's added to the system to know when the capacity of certain pipes is being approached.
- **Future Upgrades to Existing Pipes**

- **Conclusion** - Some of the existing trunk lines will exceed capacity before Nibley is completely built out (Figure 11).
- **Recommendation** - Begin planning a funding mechanism for long range system upgrades (Figure 9).
- **Future Upgrades to Hansen Lift Station –**
 - **Conclusions** The Hansen Lift Station is projected to need a third pump added around year 2030.
After 2031 and prior to buildout, the Hansen lift station pumps and the forcemain from Hansen Lift Station may need to be upsized.
 - **Recommendation** - Regularly monitor the performance of the station. Add a third pump when both existing pumps are frequently running at the same time.
- **Future Sewer Collection South of Existing Developed City Area**
 - **Conclusions** - Most of the undeveloped area south of the current service area and east of 1500 West can be served by gravity to the Hansen Lift Station.
A deep regional lift station (Southwest Lift Station) placed near the intersection of 3200 South and Highway 89/91 can serve most of the area south of 3200 South that cannot be gravity served to the Hansen Lift Station.
Approximately 633 ERU's can be added to the existing trunk line in 1500 west near 3350 South before some flows will need to be spit from 1500 West to the new Southwest Lift Station.
 - **Recommendations** – Construct the new Southwest lift station and incoming and outgoing piping to serve the surrounding area. Size the downstream pipes for buildout as shown in Figure 9.
Monitor the number of connections added upstream of 1500 West and 3200 South and plan to split some of the peak flows at this location off to go through a future lift station to the west.
Plan to remove the Scott Farm lift station when new pipes to the west of the lift station are installed.
- **Development Permitting**
 - **Conclusion** – Flows will increase significantly in the collection system over the next 10 years.
 - **Recommendation** - Require an update to the existing sewer model to verify that there is adequate capacity prior to permitting new developments.

- **Sierra Drive Trunkline**

- **Conclusion** - The slopes in the trunkline that connects to 2600 South near Highway 89 (Sierra Drive trunkline) are not certain based on conflicting elevations provided on the record drawings of the system
- **Recommendation** - Verify the slopes of the Sierra Drive trunkline between 2600 South and the Peterson lift station lateral.

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** All of the report figures are found on fold-out pages in Appendix A*

REPORT

1 INTRODUCTION

1.1 BACKGROUND

The Nibley City sanitary sewer system was constructed in 2003 and collects sewer flows from homes, and businesses within the current Nibley City limits. An overview of the collection system is shown in Figure 1: Existing System*. The collection system delivers the wastewater to a trunk line in the Logan City collection system at 1000 West 600 South and is then transported to the Logan City Wastewater Treatment Facility. Most of the collection system is made up of 8-inch diameter pipe lines with a few larger trunk lines that serve larger service areas. There is a 21-inch sewer line that runs in 2600 South from the east side of the City to the west side of the City. This line was sized during design of the system to include some future flows from Millville City.

In 2014 Nibley City completed a collection system master plan to evaluate the capacity of the and make future projections. Significant growth has occurred in the City since 2014 and this update to the master plan is needed to verify the capacity of the collection system to convey the existing flows and the flows that are now projected for the future. Table 1-1 shows the population growth in the City over the last few decades.

Table 1-1: Population Growth

Nibley City Growth (Source: U.S. Census Bureau)		
Year	Population	Average Annual Growth Rate
1990	1,220	
2000	2,083	6%
2010	5,438	10%
2019 Census Estimate	7,135	3%

The 2021 population of the city is estimated to be 8,100 based on existing residential units multiplied by 3.8 people per dwelling unit. This population was used in the 2021 existing model.

A master plan is an essential element in the development of any community experiencing growth. With a master plan, a community has a tool to guide infrastructure improvements. This master plan provides direction to continue providing adequate sewer collection services for the residents of Nibley in the future.

The following factors made it prudent to re-evaluate the capacity of the system to convey the current and projected flows at this point in time:

- Some of the city zoning densities have increased since the 2014 master plan. The higher densities allow for potentially larger sewer flows in the system.
- New commercial and industrial water users contribute flows to the collection system.
- An updated IFFP is needed to establish updated impact fees through an IFA for the upcoming years.

The goals of the master plan are to:

- Verify the capacity of the existing system to convey current and updated project flows based on the calibrated flows established in the 2014 plan.
- Prepare an updated capital facilities plan (CFP).
- Update the existing collection system Impact Fee Facility Plan (IFFP) to be used by the City for potential updates to the sewer Impact Fee Assessment (IFA).

The time frames analyzed for this master plan update are listed in Table 1-2.

** All of the report figures are found on fold-out pages in Appendix A*

Table 1-2: Time Frames Analyzed

Time Frames Analyzed	
Title	Description
2021	Existing peak flows based on calibrated unit flows established in the 2014 master plan and based on the current homes and businesses in the system service area.
2031	Projected peak 2031 flows based 2014 calibrated unit flows and the addition of future units projected to develop in the next 10 years as estimated by the City planner and growth rate from the Wasatch Front Regional Council (WFRC).
Buildout	Projected peak flows in the planning area with all of the planning area developed to the current planned densities and based on the calibrated 2014 unit flows. Buildout is projected to occur near year 2160 based on the 1% annual growth rate projected by projections from the WFRC for after year 2021. If the area were to grow at a 3% per year growth rate after year 2021, the planning area would be built out around year 2075.

This master plan update will allow Nibley City to continue to be prepared for future growth, and plan for required improvements.

1.2 PROJECT TASKS

The following tasks were followed to complete the plan:

- Updated the existing model with new units that have been connected to the system since 2014.
- Evaluated the existing system to determine the current capacity status.
- Updated future growth projections based on data from the Kem C. Gardner Policy Institute.
- Identified capacity improvements to the existing system for year 2031 and for buildout
- Updated the master planned conceptual sewer trunk line system to serve the undeveloped areas of the city up to the time that the area within the study area boundary is (Figure 1: Existing System*) built-out.
- Identified Capital Facility Projectes (CFPs) needed in the next 10 years and for buildout with associated opinions of probable cost.
- Prepared a collection system IFFP to be used for the updated IFA

A central component of these tasks is the use of computer modeling software to simulate current and future sanitary sewer system capacity. The software and planning parameters (used for this study are discussed in greater detail in the following sections (see Key Assumptions in Section 2).

1.3 PLAN GOAL

The main goal of the master plan update is to provide a current plan that outlines how Nibley City can budget to meet its future sewer collection needs. Future conditions (development patterns and densities) have been modeled using the planned land use densities from the City's Future Land Use Plan map and based on input from the City Planner. Land uses and other conditions may change and ultimately affect the master plan. The analysis and recommendations contained herein should be updated as necessary. The City should revisit this document prior to engaging in detailed design of any sanitary sewer facilities to verify that the model and conclusions are still valid. The model and plan should be updated and verified with any significant changes to the system.

2 EXISTING SYSTEM EVALUATION

2.1 INTRODUCTION

The evaluation of the existing sewer collection system included updating the mapping of the system, and updating the computer hydraulic model to simulate the actual flow conditions. The hydraulic model was built using InfoSWMM Suite Version 14.7 software created by Innovyze. InfoSWMM is fully integrated into ESRI ArcGIS software which allows for easy assimilation of other city mapping that is contained in GIS shape files. The ArcGIS software used during the model creation was Version 10.6.1. The model allows the system to be evaluated to assess the existing hydraulic conditions of the modeled trunk lines.

The same existing sewer lines that were modeled in the 2014 master plan were modeled for this update. Sanitary sewer lines were selected for modeling based on the amount of area they serve. The lines modeled are considered trunk lines since they carry flows from several contributing lines and have contributing areas that could produce flows that are greater than the capacity of an 8-inch pipe. Minor lines serving smaller areas are mapped, but not modeled since the probability of those lines having

** All of the report figures are found on fold-out pages in Appendix A*

sufficient capacity now and in the future is very high. For example, an 8-inch line at minimum grade flowing half full will serve more than 300 residential units. Minor lines that will never serve more than 300 Equivalent Residential Units (ERU's) will always have adequate capacity.

2.2 EXISTING SYSTEM MAPPING

The existing collection system was mapped (Figure 1: Existing System*) based on existing data from the City GIS maps and record drawings.

The following items are included in the mapping:

- Aerial image of the city
- Existing major gravity sewer lines
- Existing pressure sewer lines (force mains)
- Locations of minor sewer lines (not modeled)
- Existing lift stations and associated force mains
- Existing Nibley City limits
- Study area boundary
- Street labels

2.3 MODELING

A computer model of a sewer system is based on assumptions that characterize the area and system components. The model was updated based on many of the same assumptions that were used to develop the original model in 2014.

2.3.1 Existing System Key Modeling Assumptions

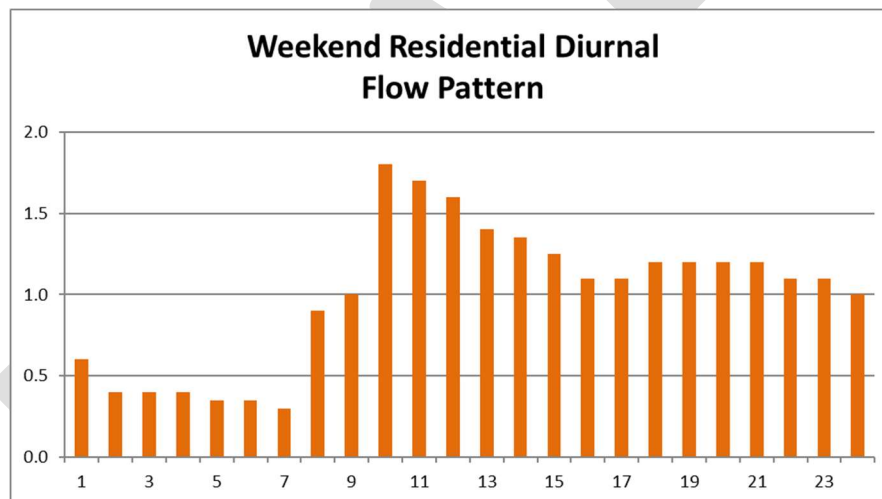
The key assumptions used in the Existing System Model are as follows:

- **Weekend Calibration** – The flow data from the 2014 master plan showed that the largest peak flows in the system occurred on the weekends. The flows in this master plan update are representative of weekend flows.
- **Existing Building Units** - Current commercial, industrial, and residential units were counted using current aerial imagery

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- **Existing Population (8,100)** - The population used for the existing model is 8,100 based on the number of residential units multiplied by 3.8 people per dwelling unit. The number of people estimated per dwelling unit is the same used in the 2014 master plan.
- **Sanitary flow per ERU (0.36 GPM per ERU)** – The peak flow from Equivalent Residential Unit (ERU) is 0.36 gallons per minute (GPM) based on the calibrated model that was created for the 2014 master plan. Average daily flows are equivalent to 90 gallons per capita per day (GPCD).
- **Residential Flow Pattern** – The residential diurnal flow pattern that was used in the 2014 master plan was used for this master plan. Graph 2-1 below shows the weekend residential diurnal pattern that was used in the model to match the shape of the 2014 metered flows.

Graph 2-1: Residential Diurnal Curve



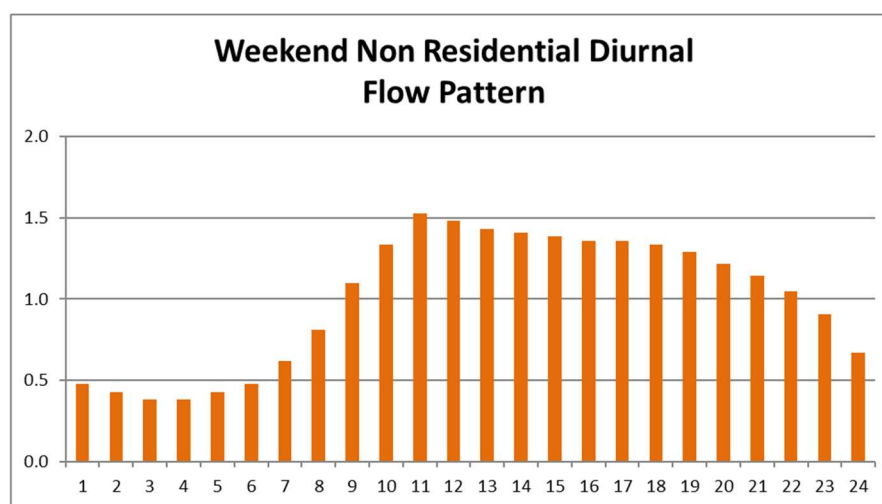
The diurnal curve allows the modeling software to quantify the flow throughout the day for the various types of land use. The diurnal flow pattern shown in Graph 2-1 represents only the sanitary residential flows and does not include Infiltration and Inflow (I&I) flows.

- **Non-Residential Flow Pattern (800 GPAD)** – The peak flows in Nibley occur on the weekend based on past flow metering. For the non-residential water users that operate on the weekends, 800 GPAD was used. Churches were found to be equivalent to approximately 1

** All of the report figures are found on fold-out pages in Appendix A*

ERU when using a residential pattern and were treated as such. Schools had no active flow in the model due to the calibration of weekend flows. Graph 2-2 below shows the weekend non-residential diurnal pattern that was used in the model to match the shape of the 2014 metered flows.

Graph 2-2-2: Non-Residential Diurnal Curve



- **Significant Weekend Water User (3,333 Average GPD)** – Winter water meter data was evaluated for significant water users that may use water on the weekends and is included in the model. The only significant water user that may operate during the weekend is the Maverick Car Wash with average flows of 3,333 gallons per day (GPD).

Lift Stations – Lift stations were modeled with the same parameters that were used in the 2014 master plan. The 2014 model calibration process included adding the pump parameters from the four existing lift stations (Figure 1: Existing System*) to simulate the pumped flows within the system. The flows from the lift stations were calculated based on data collected by the city public works staff. The staff went to each lift station and recorded the dimensions of the lift station wet wells, the time that the pumps ran, and the amount of drawdown in the wet well over a period of time. Table 2-1 summarizes the flow data for each lift station.

* All of the report figures are found on fold-out pages in Appendix A

Table 2-1: Existing Lift Station Data

EXISTING LIFT STATION DATA							
Existing Lift Station Name	Approximate Location	*Wet Well Diameter (in)	Draw Down Depth (ft)	**Time (min)	Wet Well Area (ft ²)	Wet Well Volume (gallons)	Flow (GPM)
Scott Farm	3480 S. 780 W.	72	1	3.7	28.3	211	57
Caine Dairy	3600 S. HWY 89	90	1	2.8	44.2	330	118
Peterson	2690 S. HWY 89	96	1	1.9	50.3	376	194
Hansen	Heritage Drive just east of HWY 89	19'-8" X 13' Rectangle	3	4.4	767.1	5738	1314

*Dimensions taken from system record drawings.

**Times provided by Nibley City Staff.

2.3.2 Model Development

The model input consists of three drawing layers; the system layer, the service area layer, and the parcel data layer. These three layers were created using ESRI ArcGIS 10.6.1 software and then were imported into the InfoSWMM software.

- **System** - The existing system layer contains a geometric map of the sewer system and a database that holds information about the sewer system, such as pipe length, pipe diameter, manhole rim elevation, and pipe invert (flow line) elevations. The system layer was built using survey data and other GIS data (pipe sizes etc.) provided by the City for the 2014 model. (Figure 1: Existing System*).

During development of the model it was discovered that a pipe segment in the Sierra Drive trunkline just south of 2600 South was much flatter than the other pipe segments. There is a discrepancy in the invert elevations listed for this trunkline in the record drawing plan sheets. The lid of the manhole with the elevation discrepancy is buried in an agricultural field. The slopes of the trunkline were adjusted by interpolating elevations between the 2600 South manhole and the manhole that the Peterson Lift Station lateral connects to. The resulting slope of the interpolated pipes is 0.22%.

- **Service Areas** - The existing service area layer is the same as the 2014 model service area layer that was created to split the City into smaller sewer drainage basins to determine where sewer flows are collected by the existing sewer system and where areas to develop in the future will be collected. This layer identifies where flows are added into the modeled collection system. The service areas were determined based on the current layout of the sewer system and area topography. Figure 2: Service Areas* shows the existing and future service areas used for the models and indicates which manholes receive the flows from each of the service areas.
- **Parcel Data** - The parcel data layer generates the sewer flows in the model. It contains the flow generating information such as population, contribution per capita, and land use. Each of the developed parcels was assigned to one of the following land use types and associated daily use pattern (diurnal curves):
 - Agriculture Preservation
 - Commercial
 - Industrial
 - Institutional and Public Lands
 - Neighborhood Center –Mixed Use
 - Neighborhood Commercial
 - Park and Open Space
 - Residential
 - Medium Density
 - Low Density
 - Rural

The existing flows are generated per parcel from existing residential and non residential units established from aerial imagery and from coordination with the city engineer. The modeling software intersects the service area layer and parcel data to determine how much flow is generated within each service area and then allocates the flow to the corresponding manhole. Appendix B includes a table listing each service area and its corresponding total measured area, receiving manhole, average flow, and planned ERU's.

* All of the report figures are found on fold-out pages in Appendix A

2.3.3 Level of service (LOS)

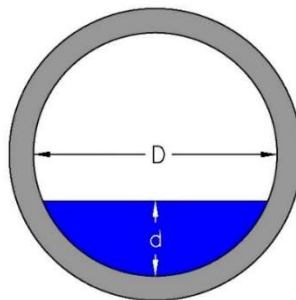
The City has selected the following criteria for the collection system level of service. It is determined based on the percent full as compared to the full pipe capacity. The percent of full capacity must be less than 75% for pipes eight inches to 15 inches in diameter and 85% for pipes larger than 18 inches during the peak instantaneous flow.

The LOS for sewer lift stations in the collection system is determined based on the peak flow that enters each station. The peak flow entering a lift station must be less than 85% of the pumping capacity of the lift station pumps assuming that one pump in the pump station is not running.

2.3.4 Existing Depth of Flow over Diameter of Pipe (d/D)

A quick way to display how well a collection system accommodates flows is by looking at the depth of flow in a pipe as a ratio of the pipe's inside diameter. The illustrated pipe shown in diagram 2-1 below represents a pipe flowing less than half full.

Figure 2-1: Depth of Flow (d) to Pipe Diameter (D) or d/D



A pipe that is full would have a d/D value of 1.0. While a pipe flowing half full would have a d/D value of 0.5. Larger pipes are able to handle more flows than are smaller pipes, at equivalent d/D values. Larger pipes have more reserve capacity per increment of d/D value.

The InfoSWMM modeling software reports d/D values based on the hydraulic grade line throughout the collection system. If there is a downstream choke point in the collection system that causes the water to back up and raise the hydraulic grade line to levels above the top of a pipe, InfoSWMM reports a d/D value of 1.0. The d/D values typically vary along the length of pipe segments. Some pipe segments have flows that transition between full or partially full.

** All of the report figures are found on fold-out pages in Appendix A*

The d/D values recorded in this report are at the upstream end of each pipe segment in the model.

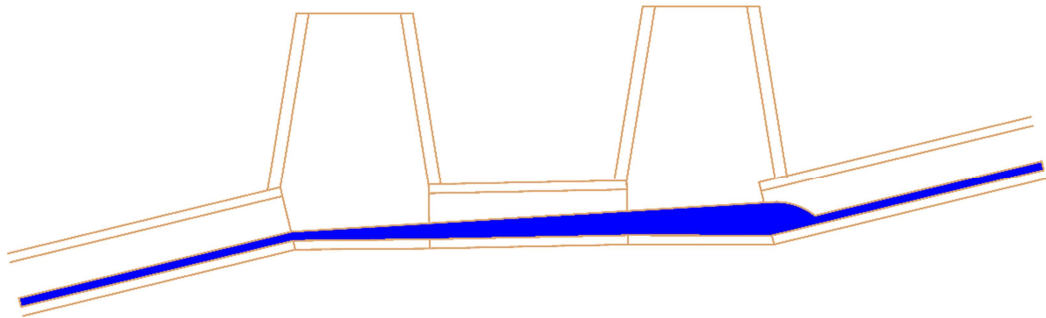
The existing depth of flow over diameter of pipe (d/D) for each pipe in the existing collection system is shown in Figure 3: Existing Depth over Diameter. These are the d/D values for each pipe segment with existing flow conditions during the peak flow time of the day. Currently there are a few isolated areas with full pipes ($d/D > 0.93$). The maximum non-pressurized capacity of a pipe is achieved at a d/D Value of 0.93 because of increased friction losses created by the water coming in contact with the tops of the pipes.

2.3.5 Existing Reserve Capacity

An equally important measure of system capacity is reported in the InfoSWMM output as reserve capacity. Reserve capacity is a measure of how much additional flow can be added to any given pipe segment based strictly on the Manning's open channel flow equation. The reserve capacity is calculated for each pipe segment individually without taking into account any backwater that may be present from a downstream choke point. Reserve capacity can be reported in various units. For this master plan the reserve capacity is reported in units of gallons per minute (GPM).

The reserve capacity (in terms of additional ERU's that can be added) in each of the existing pipes under 2021 flow conditions during the peak flow time of day is shown in Figure 4: Existing Reserve Capacity*. The pipes in the figure are color coded based on ranges of excess capacity. Figure 4 also includes labels that identify the estimated additional number of ERU's that can be added upstream of major pipe junctions in the system based on limiting pipe segment (pipe with least reserve capacity) downstream.

There are more pipes in Figure 4 that have zero or negative reserve capacity than pipes that are shown in Figure 3 with a d/D greater than 0.93. This happens because there are short flat segments of pipe in the system that do not have enough slope to convey the flows based on the Manning's equation. However, because the pipe segments are short and the downstream pipe segments are steeper, the hydraulic grade line never reaches the top of the pipe. This flow condition is illustrated in Diagram 3-2 below.

Figure 2-2: Negative Reserve Capacity Illustration

The pipe segment between the two manholes is so flat that the water is beginning to back up. This is because the capacity of the pipe, based on the Manning's equation, is less than the peak flow. If the flat pipe segment were much longer, the hydraulic grade line would rise above the top of the pipe. In InfoSWMM, the middle pipe segment gets reported as a pipe with negative reserve capacity even though the water surface never reaches the top of the pipe.

2.3.6 Hydraulic Grade Line Profile Evaluation

Areas that were highlighted in the model as having high d/D values and low reserve capacities were evaluated further by viewing system profiles in the modeling software. The profiles show the peak hydraulic grade line through the pipe segments. By evaluating the model profiles, the pipe segments that are actually causing surcharging (hydraulic grade lines above the tops of pipes) were identified.

2.3.7 Existing Model Conclusions

The results of the existing 2021 collection system evaluation offer some conclusions:

1. All of the existing collection lines have reserve capacity to serve approximately 400 or more additional ERU's based on the stated assumptions.
2. All of the existing collection lines have enough capacity to serve for the next 10 years including the planned flows from Millville City, which may or may not come into the Nibley system in the future.

3 MASTER PLAN & RELIEF ALTERNATIVES

3.1 INTRODUCTION

The master planning portion of the study involves applying future growth projections in the model to identify the future collection system improvements needed as the City grows. This master plan specifically considers the scenarios listed in Table 3.1.

Table 3-1: Future Time Frames Analyzed

Future Time Frames Analyzed	
Title	Description
2031	Projected 2031 peak flows based on the projected growth. The areas that are expected to be developed by 2031 are shown in Figure 5 Projected Growth*
Buildout	Projected peak flows assuming the areas within the study area boundary are developed to the densities indicated in Figure 6 Land Use*. Based on the projected WFRC growth of 4.6% per year until year 2031 and 1% until buildout, buildout will occur around year 2161. If growth after year 2031 is 3.0% per year until buildout, buildout will occur around year 2075. The areas that are expected to be developed between 2031 and buildout are shown in Figure 5.

The master plan study area covers the area within the current city limits and includes some future annexation areas to the north and to the south of the current city limits outside of the city boundaries. The study area does not include any area west of Highway 89/91 except for areas that are currently within the City limits (Figure 1: Existing System*).

Build out within the city limits is defined as the future condition when all of the areas within the current city limits will be developed to the current planned densities (Figure 6). *Build out, or annexation build out* is defined as the future condition when all of the areas within the study boundary will be developed to the current planned densities.

The master plan models were utilized as tools for sizing future relief lines (lines that will be constructed to replace or supplement existing lines to relieve choke points) and future trunk lines (lines that will be extended to undeveloped areas of the city). The results of the master plan model identify conceptual alignments and required line sizes to accommodate future conditions within the study boundary.

* All of the report figures are found on fold-out pages in Appendix A

3.2 KEY ASSUMPTIONS FOR MASTER PLAN MODELS

The assumptions that are listed in Section 2.3.1 for the development of the existing model were used for the future models. The following is a list of additional key assumptions used for future projections:

- **Future Growth Rates** - The estimated future annual population growth rate is 4.6 for years 2021 through 2031 and 1% thereafter based on WFRC Projections.
- **Sizing of Improvements** - All of the recommended improvements in the master plan are sized to convey the projected build-out flows for the study area.
- **Study Area** - The master plan study area is 9.1 square miles.
- **Millville Flows** - It is assumed in the master plan models that the peak flow of 950 GPM projected to come from Millville into the 2600 South trunkline, will not come into the Nibley collection system.
- **Future Land use** - The land uses in the model are based on the planned future land uses that are shown in Figure 6.
- **Buildout Population** - The estimated build out population served by the collection system, is 35,600 based on the planned densities given in the future land use map. It is estimated that the build out population will be reached in year 2161 based on the assumed growth rates.
- **Future Pipe Upgrades** - Existing pipes that do not have enough capacity for future flows will be replaced. Future relief lines could also be new lines that run parallel to the existing lines to add capacity where needed. If parallel lines are installed and the existing lines are kept in service, the proposed new lines could be smaller.
- **Ground Elevations** - Ground elevations for future service areas were taken from a Light Detection and Ranging (LIDAR) survey of the entire city that was completed by Aero-Gaphics Inc. in the fall of 2013.
- **Future Growth Areas** - The City staff provided direction for areas where growth I sprojected to occur between now and 2031 (the next 10 years). These areas are indicated in Figure 5 along with the areas that have been assumed to develop by buildout.

3.3 2031 EVALUATION

A model scenario was created to evaluate the capacity of the existing sewer system at year 2031. Future growth was added to the existing model in areas inside the current city boundary that were identified by City staff members as areas that may develop in the next ten years (Figure 5

Figure 7: 2031 d/D* provides an overview of the d/D values in the existing system with the projected 2031 flows. Figure 8 Reserve Capacity* shows the reserve capacity in the 2031 model scenario. None of the existing pipes are backing up and no pipe capacity improvements are needed between now and 2031 based on the assumptions used to build the model. Another pump will need to be added to the Hansen Lift Station as flows approach the projected 2031 peak flows.

3.4 BUILD OUT

A model scenario was created to identify conceptual upgrades to the existing system and future trunk lines and lift stations needed for year Build out. Estimating the size of pipes that will be needed at build out is important because it provides a pipe size guide to follow as new pipes are installed or existing pipes are replaced. This guide helps prevent a situation where the City might upsize a pipe only to find out shortly thereafter that an even larger pipe is needed to accommodate future growth.

An existing ground surface layer was created in the model using the LIDAR survey data to master plan the areas that are currently undeveloped. The master planned pipe system was laid out to take advantage of the natural slope of the land and low-lying areas. The final decision on sewer service to these areas will be determined by Nibley City policy and land development activity.

The routes of the master plan lines may be slightly altered without affecting service depths or reducing pipe capacities. A detailed land survey will be required during design of the future pipes to ensure that they can connect to the existing collection system. Detailed land survey data will also be needed to determine if there are some isolated areas in the south part of the city can be served without adding additional small lift stations.

The future service areas were delineated based on natural and land use boundaries. The future service areas divide the undeveloped areas into parcels that drain naturally to the trunk lines.

Figure 9: Existing and Proposed Diameters* shows the recommended collection system with the existing pipe sizes and the sizes of any proposed lines needed to serve the area within the study area boundary

* All of the report figures are found on fold-out pages in Appendix A

when it is built out to the planned densities. This system routes most of the undeveloped area located south of the city to the west to 1500 West Street and then north through the south trunk line. The south trunk line on 1500 West can handle maximum flows of 250 gpm or approximately 700 ERU's. before some flows will need to be split to the west through the future Southwest Lift Station.

The proposed future trunk line upgrades (Figure 9: Existing and Proposed Diameters) are based on the assumption that undersized trunk lines will be replaced with larger trunk lines. During design of the new improvements the City may choose to add parallel lines to supplement the capacity of the existing trunk lines as needed.

Figure 10: Buildout d/D* shows the d/D values in the build out system with all of the needed improvements made to the collection system. Figure 11: Buildout Reserve Capacity* shows the buildout reserve capacity.

The future improvements needed are outlined in Section 4. Large deviations from the master plan may affect line capacity and serviceability of some areas. The effects of changing the master plan should be thoroughly studied before allowing significant deviations.

3.5 LIFT STATION EVALUATION

All of the existing lift stations are projected to have adequate capacity through buildout with the exception of the Hansen Lift Station, located along Heritage Drive just east of HWY 89 (Figure 1: Existing System*). This lift station receives all of the sewer flows from the City. It will continue to receive increased flows as the City grows and will eventually need to be upgraded. It currently has two pumps that pump at 1,688 GPM each and has a vacant space allotted for a future third pump. Two pumps at a minimum are always required in lift stations to provide redundancy in case of a pump failure. When the peak flows in the system start to exceed the capacity of one pump (1,688 GPM) a third pump should be added to maintain redundancy. Based on the model projections it is estimated that the third pump will need to be added around year 2030. The total peak flow at buildout is estimated to be 4,300 gpm, significantly exceeding the current capacity of the lift station and will need to be upgraded to meet the buildout demands.

There is only one 14-inch force main pipe that currently runs from the Hansen Lift Station to the Logan collection system. One force main is adequate to convey the flows and meets the standard of service

* All of the report figures are found on fold-out pages in Appendix A

through the ten year scenario. However, the projected force main velocity at year 2031 is 7.4 feet per second and is at the upper velocity threshold.

All of the pump stations will need to be maintained to continue to function properly. The City should continue to do regular maintenance on these lift stations and will eventually need to replace pumps and other equipment as the system ages.

With a new southwest lift station and the planned future pipes, the Caine Dairy lift station and the Scott Farm lift station can be abandoned as development occurs. To the south of the Caine Dairy there are some hard to serve areas that may make keeping the Caine Dairy lift station logical. A map of the existing and projected lift stations is given in Figure 9: Existing and Proposed Diameters*.

Table 3-2: Lift Station Summary

LIFT STATION IMPROVEMENTS		
Lift Station Name	Approximate Location	Projected Upgrades*
Existing - Scott Farm	3480 S. 780 W.	No upgrades currently projected. This is based on the assumption that the undeveloped areas to the south will be served by future trunk lines going to the west. Plan to discontinue use of this lift station in the future and route flows west through future gravity lines.
Existing - Caine Dairy	3600 S. HWY 89	No upgrades currently projected. May abandon in the future if all of the southwest area can be served by the planned southwest lift station.
Existing - Peterson	2690 S. HWY 89	No upgrades currently projected.
Existing - Hansen	Heritage Drive just east of HWY 89	An additional pump will need to be added to the available slot in the lift station around year 2030. Additional upgrades will be needed prior to buildout.
Future - Northeast Regional	2200 S. Union Pacific Rail Road	This new lift station will be needed to serve new development in the area between 2200 and 2500 South and Union Pacific Rail Road and Black Smith Fork River.
Future - Southwest Regional	3200 S HWY 89/91	This new lift station will be needed to serve new development in the area south and west of the current city limits.

*Upgrades based on model assumptions. Nibley City should regularly monitor the performance of each of the lift stations to identify capacity improvement needs before capacities are exceeded.

4 CAPITAL FACILITIES PLAN (CFP)

4.1 INTRODUCTION

There are no existing collection system capacity deficiencies. However some projects are needed in the next 10 years and others will be needed to serve the city under buildout conditions.

4.2 PRIORITIZED COLLECTION SYSTEM CFP PROJECTS

The CFP projects that have been identified to address the future capacity needs are shown in Figure 9: Existing and Proposed Diameter* for each evaluated time frame. Each of the pipe upgrade projects shown is based on the assumption that the existing pipe would be replaced by a new larger pipe. The City may decide to install smaller new pipes parallel to the existing pipes as long as the two pipes combined provide the same capacity as the shown proposed pipe. This is less feasible in roadways that already have many existing utilities buried under ground.

The recommended CFP projects are prioritized and assigned a letter based on the prioritization. The City may choose to do the projects in a different order as unforeseen circumstances arise that affect when a project should be completed.

Table 4-1 below lists the needed projects identified within the existing collection system in order of priority. The needed projects should be completed in the order they are listed, unless some future event dictates that another prioritization be followed, and as funding becomes available. The exact time frame for the construction of these projects is not known and will be driven by development, but they will need to be completed prior to the recommended time frame if development occurs as assumed in this plan. The exact sizes for the pumps and force mains for the lift stations will be determined during design of the lift stations.

Table 4-1 also includes opinions of probable cost for improvements to the existing system. It does not include the opinions of probable cost for the conceptual future collection system pipes to serve the areas projected to grow after 2031, but they are given in Section 4.4.

Table 4-1: Prioritized CFP Projects

CAPITAL FACILITIES PLAN PROJECTS				
PRIORITY	PROJECT DESCRIPTION	PROJECT TYPE	RECOMMENDED TIMEFRAME	PROJECT COST
A	Build new 24" trunkline from 2600 S upstream to 2960 S	Key Infrastructure	Prior to 2031	\$886,000
B	Build new South West Regional LS and force main along with a 10" gravity sewer line from the new LS to 3400 S	Key Infrastructure	Prior to 2031	\$1,848,000
C	Add a third pump to Hansen lift station	Capacity	Prior to 2031	\$151,000
	2031 Timeframe Subtotal			\$2,401,000
D	Upsize the existing 12" trunkline to 24" from 2600 S upstream to 2960 S	Capacity	Prior to Buildout	\$1,043,000
E	Upgrade the pumps and forcemain at the Hansen LS	Capacity	Prior to Buildout	\$3,660,000
F	Install a diversion and 8" pipe to send peak flows across HWY 165	Capacity	Prior to Buildout	\$1,364,000
	Buildout Timeframe Subtotal			\$5,261,000
	Total			\$7,662,000

4.3 COLLECTION SYSTEM OPINIONS OF PROBABLE COST ASSUMPTIONS

The opinions of probable cost for the projects in this plan are based on J-U-B bid tabulation records for sewer collection and lift station projects and pipe material costs provided by pipe suppliers. For piping projects, it is assumed that the improvements will be made utilizing conventional open-cut construction in city roadways with manholes will be placed every 400 feet. The project costs include an additional 25% contingency factor to account for utility conflicts and other items that will be discovered during the design process and the estimated costs for engineering services. A detailed breakdown of each of the collection system project costs is provided in **Appendix C**.

4.4 CONCEPT PLAN FOR FUTURE GROWTH AREAS

A concept plan has been prepared help the City know how future areas to develop may be served by sewer. **Figure 9 – Existing and Proposed Diameters** is a map that shows a conceptual collection plan to serve the areas that are projected to develop by 2161. The map shows all of the improvements that

need to be made to the existing collection system and future pipes and lift stations that will help serve the areas to develop by 2021 and by 2031.

All new sewer system improvements within the City need to be constructed to meet current Nibley City and State design requirements. This is true for public systems as well as sewer systems that are constructed as private utilities including collection piping and lift stations. The City standards for design and construction shall be used in conjunction with Utah Administrative Code R317-3. Where a conflict exists between these two standards, the Administrative Code shall prevail.

4.4.1 Concept Plan Pipe Assumptions

The future trunk lines included in the CFP as shown in Figure 9 are sized to meet the same level of service as the existing pipes. **Table 4-2** lists the assumed slopes for the future trunk lines by pipe size. The conceptual plans in this master plan are based on rough elevation data. All future pipes and lift stations will need to be designed based on topographic survey data and other more detailed data prior to construction. The opinions of probable cost for the trunk lines shown in the conceptual collection plan for areas to develop in the future are given in Section 5.2.

Table 4-2: Future Pipe Design Parameters

Future Pipe Design Parameters					
D Diameter (inches)	Design % Capacity	Qmax Peak Flow (GPM)	Q Flow at Capacity (GPM)	s Minimum Pipe Slope ¹	ERU's at Capacity
8	0.75	373	280	0.40%	776
10	0.75	565	424	0.28%	1178
12	0.75	815	611	0.22%	1698
15	0.75	1220	915	0.15%	2542
18	0.85	1774	1508	0.12%	4189
21	0.85	2443	2077	0.10%	5769
24	0.85	3488	2965	0.10%	8236
27	0.85	4776	4059	0.10%	11276
30	0.85	6325	5376	0.10%	14933

¹10 State Standards minimum slope for 8" - 21" Pipe, 0.1% for constructability for pipes larger than 18"

4.4.2 Future Lift Stations

There are a few options available to communities to consider and investigate for wastewater collection and conveyance to a treatment facility. The options must consider the effects of topography, depth to ground water, where growth is expected to occur, as well as Utah State regulations governing collection systems (UAC R317-3). Some of the options include:

- Conventional gravity lines with lift stations
- Vacuum sewer systems
- Individual ejector pumps at sewer services.

The master planned system shown in Figure 9 is based on the use of conventional gravity lines and lift stations. Future Pump Stations to Serve Future Service Areas.

New lift stations will be required to serve the undeveloped areas that are outside of the current collection system service area. By following this master plan the City can have regional lift stations and limit the number of future lift stations needed. One regional lift station will be needed to serve the northeast corner of study area and another will be needed to serve the southwest corner (Figure 9: Existing and Proposed Diameters*).

The Northeast Regional Lift Station will need to include a pipe under the railroad tracks. The Southwest Regional Lift Station will need to have a force main to carry the flows to the Hansen Lift Station. Table 4-3 gives the estimated costs to construct the lift stations.

Table 4-3: Costs for Lift Stations to Serve Future Service Areas

FUTURE PUMP STATIONS TO SERVE FUTURE DEVELOPMENTS	
DESCRIPTION	COST
Construct New South West Regional Lift Station with Force Main	\$ 908,000
Construct New North East Regional Lift Station With Force Main Under Rail Road Tracks	\$ 350,000
ENGINEERING & CONSTRUCTION CONTINGENCY (40%)	\$ 503,000
TOTAL FOR FUTURE LIFT STATIONS	\$ 1,761,000

4.5 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are based on the assumptions and results of the modeling and CFP:

- **Existing Capacity**
 - **Conclusion** – The existing system has no deficiencies based on the results of the modeling and the established the Level of Service (LOS) for pipes and lift stations.
 - **Recommendation** – Continue to inspect the system for sources of infiltration and inflow and eliminate those sources.
- **Reserve Capacity for Future Equivalent Residential Units (ERU's)**
 - **Conclusion** - All of the existing collection lines can serve approximately 400 or more additional ERU's. Figure 4 lists the approximate number of additional ERU's that can be added upstream of major trunkline intersections.
 - **Recommendations** - Require an update to the existing sewer model to verify that there is adequate capacity prior to permitting each new development. Track the number of new ERU's added to the system to know when the capacity of certain pipes is being approached.
- **Future Upgrades to Existing Pipes**
 - **Conclusion** - Some of the existing trunk lines will exceed capacity before Nibley is completely built out (Figure 11).
 - **Recommendation** - Begin planning a funding mechanism for long range system upgrades (Figure 9).
- **Future Upgrades to Hansen Lift Station –**
 - **Conclusions** The Hansen Lift Station is projected to need a third pump added around year 2030.
After 2031 and prior to buildout, the Hansen lift station pumps and the forcemain from Hansen Lift Station may need to be upsized.
 - **Recommendation** - Regularly monitor the performance of the station. Add a third pump when both existing pumps are frequently running at the same time.
- **Future Sewer Collection South of Existing Developed City Area**
 - **Conclusions** - Most of the undeveloped area south of the current service area and east of 1500 West can be served by gravity to the Hansen Lift Station.
A deep regional lift station (Southwest Lift Station) placed near the intersection of 3200 South and Highway 89/91 can serve most of the area south of 3200 South that cannot be gravity served to the Hansen Lift Station.
Approximately 633 ERU's can be added to the existing trunk line in 1500 west near 3350 South before some flows will need to be spit from 1500 West to the new Southwest Lift Station.

- **Recommendations** – Construct the new Southwest lift station and incoming and outgoing piping to serve the surrounding area. Size the downstream pipes for buildout as shown in Figure 9.
Monitor the number of connections added upstream of 1500 West and 3200 South and plan to split some of the peak flows at this location off to go through a future lift station to the west.
Plan to remove the Scott Farm lift station when new pipes to the west of the lift station are installed.
- **Development Permitting**
 - **Conclusion** – Flows will increase significantly in the collection system over the next 10 years.
 - **Recommendation** - Require an update to the existing sewer model to verify that there is adequate capacity prior to permitting new developments.
- **Sierra Drive Trunkline**
 - **Conclusion** - The slopes in the trunkline that connects to 2600 South near Highway 89 (Sierra Drive trunkline) are not certain based on conflicting elevations provided on the record drawings of the system
 - **Recommendation** - Verify the slopes of the Sierra Drive trunkline between 2600 South and the Peterson lift station lateral.

** All of the report figures are found on fold-out pages in Appendix A*

5 IMPACT FEE FACILITIES PLAN (IFFP)

5.1 INTRODUCTION

The purpose of the Sanitary Sewer Impact Fee Facilities Plan (IFFP) is to determine the impacts placed on the sewer system from future development as outlined in Utah Administrative Code (UAC) Title 11 Chapter 36a-301 and 36a-302. The IFFP outlines which improvements in the CFP can be funded through impact fees. **Appendix D** contains the detailed requirements for the IFFP from as listed in UAC. This IFFP utilizes information from the collection system model and CFP to provide the information that becomes the foundation for the Impact Fee Analysis (IFA). The IFA will be prepared by a financial consultant.

Table 5-1 lists the flow values per ERU that were determined during the flow metering and modeling process and are used for the collection related aspects of this IFFP.

Table 5-1: Sewer Collection Peak Flows per ERU

Sewer Collection Peak Flow Values Per ERU	
Existing ERU's	
Description	Value
People per ERU	3.8
¹ Average Flow per Person (GPD)	90
Peak Flow per ERU (GPM)	0.36 GPM

¹Based on sewer flow meter data collected in 2013.

5.2 REQUIRED IFFP ELEMENTS

The following general tasks and elements are required as part of the IFFP:

- Identify the existing Level of Service (LOS)
- Establish a proposed LOS.
- Identify any excess capacity to accommodate future growth at the proposed LOS
- Identify demands placed upon existing system by new development activity at the proposed LOS and the means by which the City will meet those growth demands.
- Consider potential revenue sources to finance the impacts on system improvements

5.3 EXISTING LOS

The following sections provide performance standards, or the LOS required for collection pipes and lift stations. Also provided is a description of how the existing systems meet the LOS.

5.3.1 Collection Pipes

The LOS for the collection pipes is determined based on the percent full as compared to the full pipe capacity. The percent of full capacity must be less than 75% for pipes 8-in to 15-in and 85% for pipes larger than 18-in during the peak flow in the collection system pipes.

5.3.2 Lift Stations

The LOS for sewer lift stations in the collection system is determined based on the peak flow that enters each station. The peak flow entering a lift station must be less than 85% of the pumping capacity of the lift station pumps assuming that one pump in the pump station is not running.

Currently, Hansen Lift Station is operating under capacity. An additional pump will be needed prior to 2031 to maintain the LOS and to serve future growth.

5.4 PROPOSED LOS

The proposed LOS values for collection pipes and lift stations are the same as the existing LOS values provided in section 5.3.

5.5 EXCESS CAPACITY

5.5.1 Collection System Pipes

The flows from future development will be met through a combination of available excess capacity in the existing collection system pipes and improvements to the existing system that will add capacity.

The excess capacity available in the existing collection system pipes was evaluated based on the total ERU values for the modeled pipe segments in the system.

In year 2000 the system was designed for a peak flow of 2,045 GPM. This is equivalent to 5,680 collection system ERU's (see record drawings 3 of 140). The existing ERU's are equivalent to 2,129 and the projected ERU's for the year 2031 are 3,328. Therefore, there will be an additional 1,199 ERU's during the next 10 years.

Table 5-2 lists the percent utilization for the current and future collection system.

Table 5-2: Collection System Pipe Utilization

Collection System Pipe Excess Capacity		
	ERU	Percent Utilization
2021	2,129	37.5%
2031	3,328	58.6%
Design	5,680	100%

The amount of the available capacity in the existing collection system that will be utilized by the 10-year growth is 21.1%.

5.5.2 Lift Stations

The excess capacity available in the existing Hansen lift station was evaluated based on the total ERU values.

The Hansen lift station has a design capacity of 1,688 GPM and the Level of Service is 85% of the design capacity which is equivalent to 1,435 GPM. The existing peak flow at the Hansen lift station is equivalent to 415 GPM and the projected peak flow for the year 2031 is 1,450 GPM, therefore there will be an additional 1,035 GPM during the next 10 years.

Table 5-3 list the percent utilization for the Hansen lift station.

Table 5-3: Hansen Lift Station Utilization

Hansen Lift Station Utilization		
	GPM	Percent Utilization
2021	750	52.3%
2031	1450	101.0%
Design	1435	100%

The amount of the available capacity in the Hansen lift station that will be utilized by the 10-year growth is 47.7%.

5.6 IMPROVEMENTS TO MEET FUTURE GROWTH DEMANDS

The previous sections of this master plan outline the assumptions and methods used to quantify the existing flows in the system and the flows projected for the future. There were no existing deficiencies as identified through the computer modeling that is explained in Section 2 of this report. Future deficiencies were identified by creating future model scenarios as identified in Section 3 of this report. The existing and future deficiencies are based on the established LOS criteria.

5.7 2031 IMPROVEMENT PLAN

Only the projects that need to be constructed in the next 10 years (prior to 2031) will be included in the calculation of the sewer impact fee. The projects are planned to serve development that will occur after 2031 so the entire cost of those projects is not eligible for reimbursement through current impact fees. The costs for each of the collection projects have been split into the following three categories:

1. The portion of the project that current city residents should pay. (Cost to Existing)
2. The portion of the project that can be paid for through new development impacts projected for the next 10 years. (Cost to 10-Year Growth)
3. The portion of the project that is needed to serve the growth that is anticipated for years 2031 to buildout. (Cost to Growth After 2031)

5.7.1 Collection Project Plan

Table 5-4 lists the collection projects needed between now and 2031 along with the opinion of probable cost for each project. For the pipe projects, it was assumed that existing users will pay for the portion of the pipe materials that is equivalent to the percentage of the pipe capacity that will be used by existing users. New sewer connection users will pay for the remainder of the costs because the new pipes are not needed if no new growth occurs..

Table 5-3: 10-Year Collection Project Cost Allocation

10-YEAR COLLECTION PROJECT COST ALLOCATIONS					
PRIORITY	PROJECT DESCRIPTION	TOTAL PROJECT COST	COST TO EXISTING	COST TO 10-YEAR GROWTH	COST TO GROWTH AFTER 2031
A	Build new 24" trunkline from 2600 S upstream to 2960 S	\$ 886,000	\$ -	\$ 67,399	\$ 818,601
B	Build new South West Regional LS and force main along with a 10" gravity sewer line from the new LS to 3400 S	\$ 558,000	\$ -	\$ 42,448	\$ 515,552
C	Add a third pump to Hansen lift station	\$ 151,000	\$ -	\$ 1,510	\$ 149,490
D	Upsize the existing 12" trunkline to 24" from 2600 S upstream to 2960 S	\$ 1,043,000	\$ -	\$ -	\$ 1,043,000
E	Upgrade the pumps and forcemain at the Hansen LS	\$ 3,660,000	\$ -	\$ -	\$ 3,660,000
F	Install a diversion and 8" pipe to send peak flows across HWY 165	\$ 1,364,000	\$ -	\$ -	\$ 1,364,000
		\$ 7,662,000	\$ -	\$ 111,357	\$ 7,550,643

A more detailed table of the 10-Year projects that provides the cost split percentages for materials and for construction for each time frame by project is provided in **Appendix E**.

5.8 CONSIDERATION OF REVENUE SOURCES TO FINANCE IMPROVEMENTS

Section 302 (2) of the Impact Fee Act requires the City to "generally consider all revenue sources, including impact fees and anticipated dedication of system improvements, to finance the impacts on system improvements." By doing so, the City ensures fair and equitable treatment among users and concludes whether impact fees are the most appropriate method to fund the growth.

There are a number of potential revenue sources to consider including:

- Grants
- Bonds
- Impact Fees
- Anticipated or Accepted Dedications of System Improvements

5.8.1 Grants

Impact fees may not reimburse projects funded through grants. No grants have been included in the project costs. If grants are received, costs will be adjusted accordingly.

5.8.2 Bonds

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

5.8.3 Impact Fees

Because of the growth anticipated to occur in the City, 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 sewer system may be prepared and the City may charge impact fees. This will prevent existing users from subsidizing new growth.

5.8.4 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.

5.9 IFFP CERTIFICATION

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.

"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. 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; 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."

Dated:

J-U-B ENGINEERS, INC.





REFERENCES

SA. (2007). *Nibley City General Plan*.

Environmental Protection Agency. (1991). *Sewer System Infrastructure Analysis and Rehabilitation*.

Cincinnati, OH: United States Environmental Protection Agency, Office of Research and Development.

SunriseEngineering. (2002). *Nibley Sewer Collection System Design*.

APPENDIX A

REPORT FIGURES

Figure 1: Existing System

Figure 2: Service Areas

Figure 3: Existing d/D

Figure 4: Existing Reserve Capacity

Figure 5: Projected Growth

Figure 6: Land Use

Figure 7: 2031 d/D

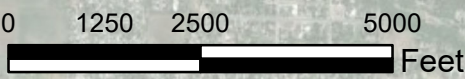
Figure 8: 2031 Reserve Capacity

Figure 9: Existing and Proposed Diameters

Figure 10: Buildout d/D

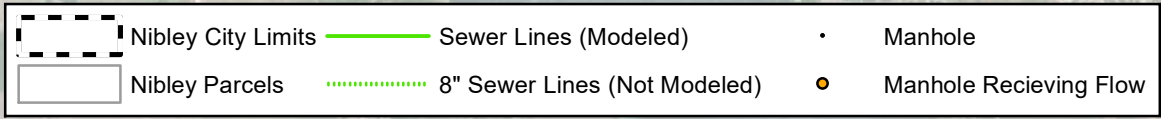
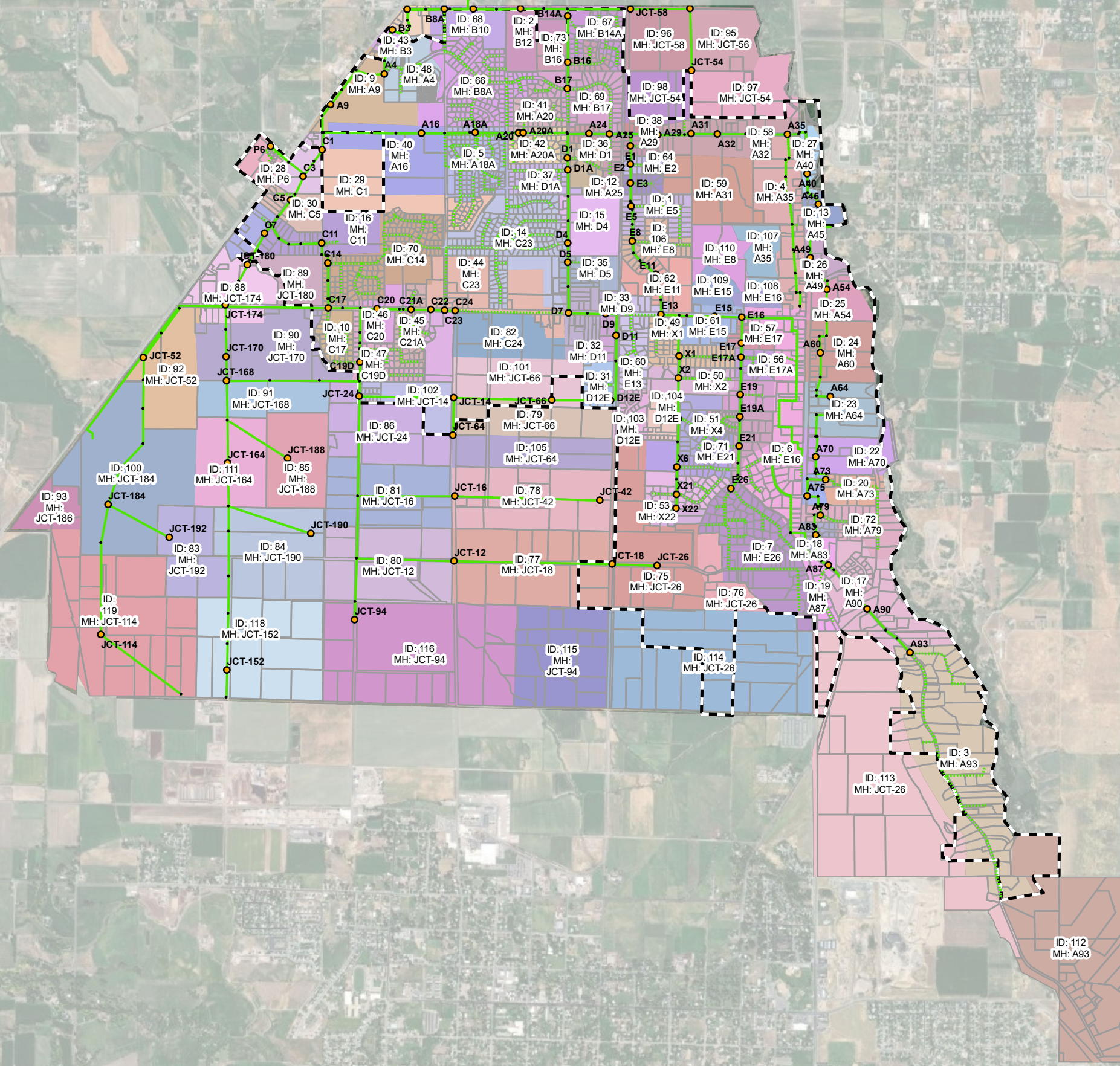
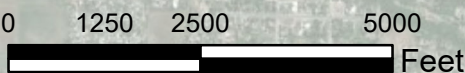
Figure 11: Builtout Reserve Capacity

Existing System

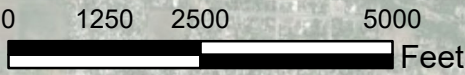


Sewer Lines (Modeled)		Force Mains (Modeled)		Lift Stations	
	8 Inch		4 Inch		Lift Stations
	10 Inch		12 Inch		8" Main Lines (Not Modeled)
	12 Inch		14 Inch		Nibley City Limits
	18 Inch				
	21 Inch				

Service Areas



Existing d/D



Sewer Lines (Modeled)

Existing d/D

Less than 0.50

0.50 - 0.65

0.65 - 0.85

0.85 - 0.93

Greater than 0.93

4 Inch

12 Inch

14 Inch

Lift Stations

8" Main Lines (Not Modeled)

Nibley Municipal Boundaries

Note: d/D represents the depth of flow divided by the diameter of the pipe.

SANITARY SEWER MASTER PLAN

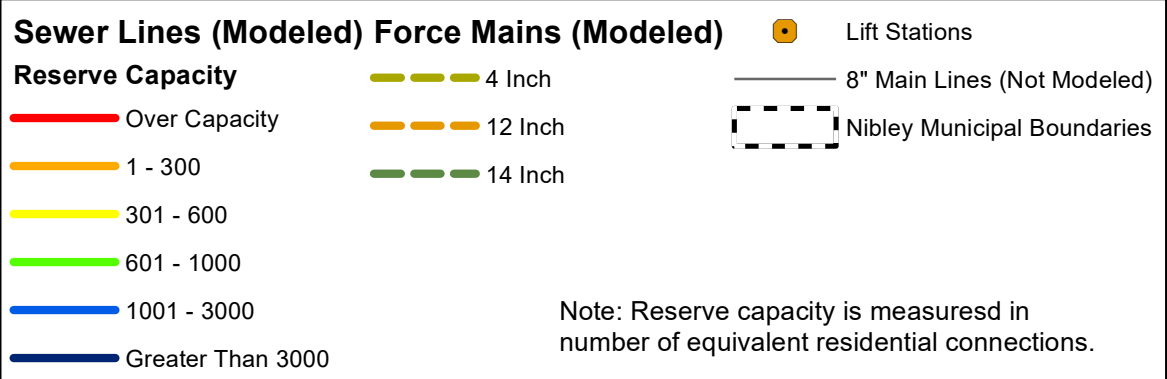
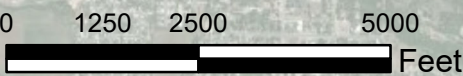
Figure 3

THE LANGDON GROUP

GATEWAY MAPPING INC.

OTHER J-U-B COMPANIES

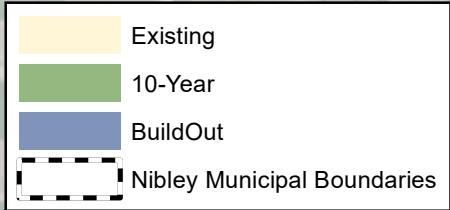
Existing Reserve Capacity



Projected Growth



0 1250 2500 5000 Feet



Land Use



0 1250 2500 5000 Feet

Future Land Use

Parks, Open Space, and Trails

Agriculture

Open Space, Agriculture, and Low Density Residential

Low Density Residential

Medium Density Residential

High Density Residential

Commercial and Medium to High Density Residential

Commercial

Industrial

Municipal, Schools, and Churches

Town Center

Nibley Municipal Boundaries

Density

1 DU/ac

1 DU/ac

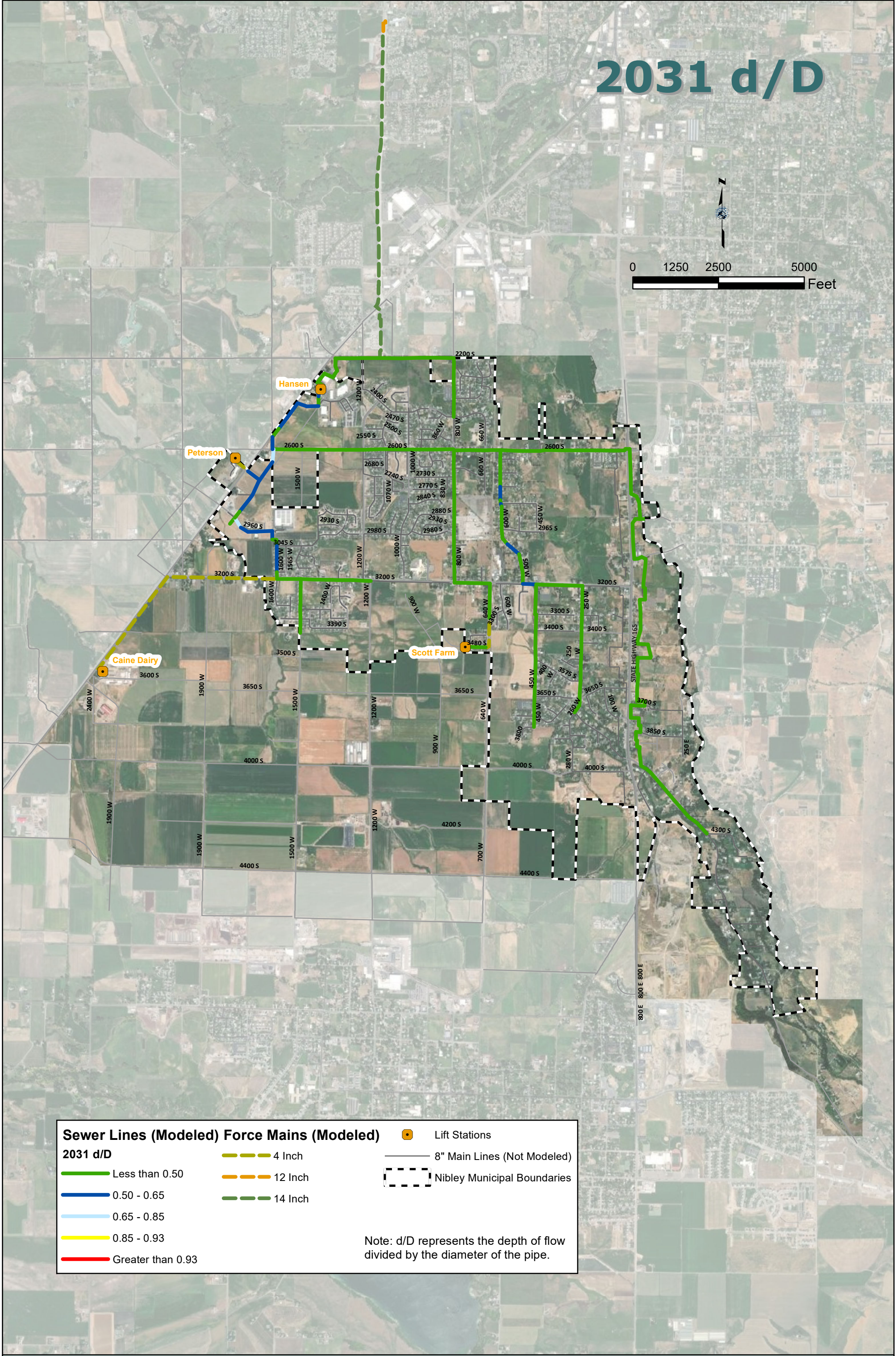
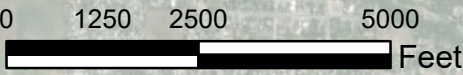
3 DU/ac

20 DU/ac

8 DU/ac

7 DU/ac

2031 d/D



Sewer Lines (Modeled) Force Mains (Modeled)

2031 d/D

Less than 0.50

0.50 - 0.65

0.65 - 0.85

0.85 - 0.93

Greater than 0.93

4 Inch

12 Inch

14 Inch

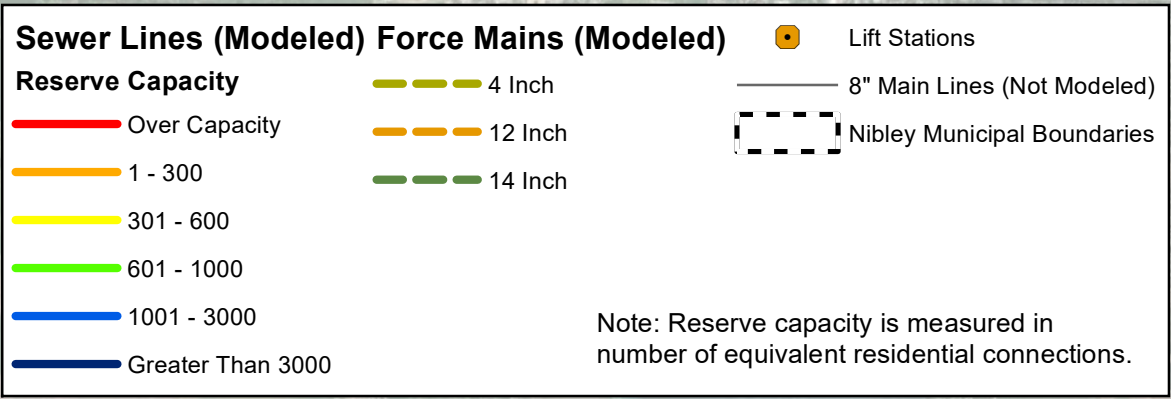
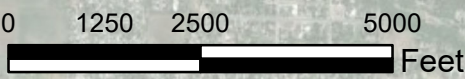
Lift Stations

8" Main Lines (Not Modeled)

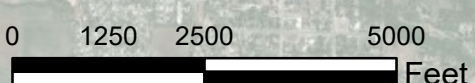
Nibley Municipal Boundaries

Note: d/D represents the depth of flow divided by the diameter of the pipe.

2031 Reserve Capacity



Existing and Proposed Diameters



E - Upgrade the pumps and forcemain at the Hansen LS.

C - Add a third pump to Hansen lift station.

Watch trunkline for capacity issues from the existing Hansen LS upstream to 2600 S as flows increase to buildout flows.

D - Upsize the existing 12" trunkline to 24" from 2600 S upstream to 2960 S.

A - Build new 24" trunkline from 2960 S to 3400 S.

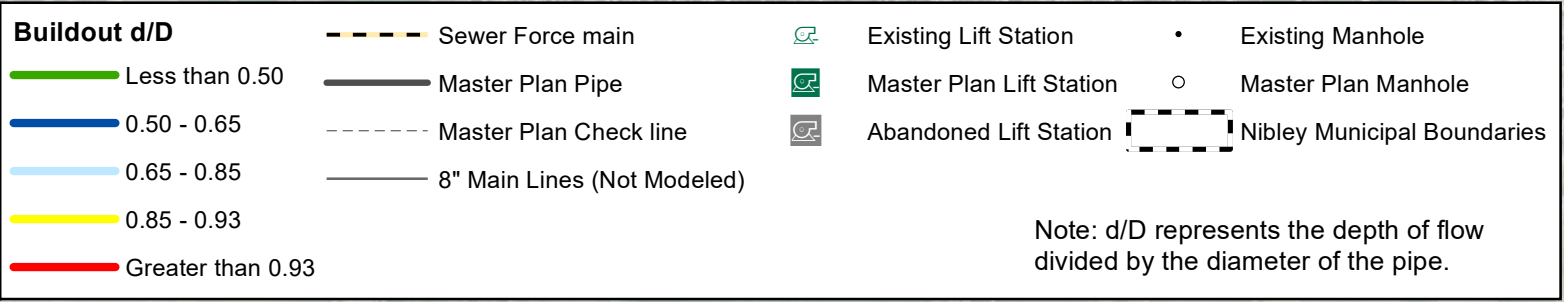
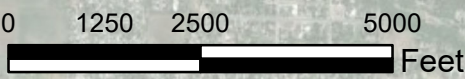
B - Build new South West Regional LS and forcemain along with a 10" gravity sewer line from the new LS to 3400 S.

F - Install a diversion and 8" pipe to send peak flows across HWY 165.

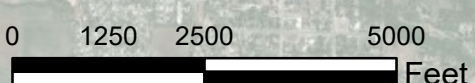
Master Plan Pipes Diameter	Existing/Upsized Pipes Diameter	Capital Improvement Timing
8 inch	8 inch	Prior to 2031
10 inch	10 inch	Prior to buildout
12 inch	12 inch	Sewer Force main
15 inch	18 inch	Existing Manhole
18 inch	21 inch	Master Plan Manhole
21 inch	24 inch (Upsized Pipe)	Existing Lift Station
24 inch		Master Plan Lift Station
		Abandoned Lift Station
		Nibley Municipal Boundaries

*Red Hatched areas are considered hard to serve and need extra consideration or a small lift station in order to serve.

Buildout d/D



Buildout Reserve Capacity



Reserve Capacity

- Over Capacity
- 1 - 300
- 301 - 600
- 601 - 1000
- 1001 - 3000
- Greater Than 3000

- Sewer Force main
- Master Plan Pipe
- Master Plan Check line
- 8" Main Lines (Not Modeled)

- Existing Lift Station
- Master Plan Lift Station
- Abandoned Lift Station

- Existing Manhole
- Master Plan Manhole
- Nibley Municipal Boundaries

Note: Reserve capacity is measured in number of equivalent residential connections.

APPENDIX B

Service Area Table

Service Area ID	Area (ac)	Receiving Manhole	Average Day Flow (gpm)	Approximate Planned ERU's
1	26.864787	E5	10.821	34
2	40.978505	B12	5.918	19
3	178.603904	A93	57.228	180
4	64.691388	A35	57.888	182
5	47.310297	A18A	25.352	80
6	91.836686	E16	24.347	76
7	95.605718	E26	30.788	97
8	25.01662	X21	8.398	26
9	46.261335	A9	37.443	117
10	21.762441	C17	8.392	26
11	14.04403	B7	4.262	13
12	15.120773	A25	4.997	16
13	14.217676	A45	2.652	8
14	86.615332	C23	34.567	108
15	39.454671	D4	3.311	10
16	43.24129	C11	4.985	16
17	73.942903	A90	20.585	65
18	9.06594	A83	3.541	11
19	22.12025	A87	5.078	16
20	18.92596	A73	5.316	17
21	7.406666	A75	1.449	5
22	40.547027	A70	5.42	17
23	44.416953	A64	10.461	33
24	45.74552	A60	7.087	22
25	25.870534	A54	6.74	21
26	18.156503	A49	5.544	17
27	11.943312	A40	2.848	9
28	15.460212	P6	1.967	6
29	65.12604	C1	86.7	272
30	21.816886	C5	3.174	10
31	16.893754	D12E	4.788	15
32	13.809489	D11	4.444	14
33	5.669719	D9	1.779	6
34	25.340783	D7	6.917	22
35	21.551659	D5	6.281	20
36	18.729384	D1	4.724	15
37	20.581883	D1A	10.047	32
38	5.865498	A29	3.354	11
39	6.445292	A24	2.412	8
40	60.535225	A16	15.781	50
41	17.342964	A20	8.332	26
42	19.933923	A20A	10.324	32
43	7.240375	B3	2.449	8
44	59.848079	C23	20.422	64
45	23.160464	C21A	10.242	32
46	20.219573	C20	1.34	4
47	26.060997	C19D	12.244	38

Service Area ID	Area (ac)	Receiving Manhole	Average Day Flow (gpm)	Approximate Planned ERU's
48	31.636669	A4	22.71	71
49	29.790169	X1	12.371	39
50	26.574082	X2	14.242	45
51	23.233289	X4	10.847	34
52	23.871719	X6	5.292	17
53	10.968459	X22	4.578	14
54	24.525178	E19A	10.099	32
55	14.872647	E19	4.54	14
56	12.99289	E17A	3.792	12
57	10.861698	E17	4.151	13
58	50.416725	A32	8.108	25
59	57.857749	A31	74.508	234
60	31.729314	E13	10.725	34
61	22.131878	E15	5.026	16
62	33.129646	E11	22.25	70
63	8.745789	E3	3.374	11
64	8.225325	E2	3.558	11
65	7.598735	E1	3.336	10
66	78.93936	B8A	39.474	124
67	32.522108	B14A	12.046	38
68	33.84365	B10	15.676	49
69	43.724189	B17	12.34	39
70	76.510171	C14	30.633	96
71	5.305214	E21	1.942	6
72	37.979341	A79	10.172	32
73	19.393675	B16	5.606	18
74	25.204614	C3	6.362	20
75	115.05372	JCT-26	27.738	87
76	27.562989	JCT-26	6.069	19
77	126.733365	JCT-18	82.703	259
78	103.682043	JCT-42	43.975	138
79	58.03411	JCT-66	25.208	79
80	102.770026	JCT-12	86.942	273
81	85.791984	JCT-16	119.073	374
82	47.195327	C24	36.547	115
83	58.327266	JCT-192	24.031	75
84	100.190966	JCT-190	109.281	343
85	61.839906	JCT-188	87.526	275
86	77.282218	JCT-24	46.065	145
87	22.014537	C22	5.278	17
88	49.323128	JCT-174	32.657	102
89	30.193239	JCT-180	3.903	12
90	90.900196	JCT-170	41.722	131
91	48.356779	JCT-168	30.226	95
92	64.116619	JCT-52	122.65	385
93	25.293617	JCT-186	3.349	11
94	32.153201	JCT-58	0	0

Service Area ID	Area (ac)	Receiving Manhole	Average Day Flow (gpm)	Approximate Planned ERU's
95	44.016662	JCT-56	25.641	80
96	46.288863	JCT-58	14.171	44
97	55.891928	JCT-54	12.935	41
98	36.208428	JCT-54	21.71	68
99	15.821087	C7	5.226	16
100	162.251476	JCT-184	4.491	14
101	59.31143	JCT-66	31.319	98
102	29.632416	JCT-14	18.602	58
103	16.934834	D12E	9.817	31
104	12.347821	D12E	2.315	7
105	55.022851	JCT-64	37.795	119
106	22.483092	E8	7.883	25
107	23.10071	A35	23.738	74
108	8.419301	E16	17.258	54
109	14.865975	E15	25.088	79
110	28.905487	E8	12.769	40
111	67.136842	JCT-164	0	0
112	189.929645	A93	78.982	248
113	308.415657	JCT-26	131.797	413
114	216.199056	JCT-26	106.236	333
115	98.607611	JCT-94	140.185	440
116	206.657529	JCT-94	137.24	431
118	134.792066	JCT-152	92.531	290
119	211.873734	JCT-114	120.504	378

APPENDIX C

Cost Estimates



J-U-B ENGINEERS, INC.

400 Memorial Dr. Idaho Falls, ID 83402 208.932.4486

Opinion of Probable Project Cost

A <i>South West Gravity Trunk Upsize</i>		Revision Date: Jun-2021			
		ESTIMATED IMPROVEMENT COST: \$ 886,000			
ITEM No.	Description	Est. Quant.	Unit	Unit Price	Total Price
1.0	Mobilization (5%)	1	LS	\$ 30,140	\$ 30,140
2.0	Construction Traffic Control	5	DAYS	\$ 1,000	\$ 5,000
3.0	Gravity Sewer Pipe				
3.1	24" PVC Gravity Sewer Pipe and Bedding	1750	LF	\$ 85	\$ 148,750
3.2	21" PVC Gravity Sewer Pipe and Bedding	1650	LF	\$ 21	\$ 34,650
3.3	Dewatering - Minor (< 15 ft)	3400	LF	\$ 10	\$ 34,000
3.4	Connect to Existing	1	EA	\$ 5,500	\$ 5,500
4.0	Single Pipe Trench Excav./Backfill				
4.1	0-10 ft. (Large Trunk)	400	LF	\$ 60	\$ 24,000
4.2	10-15 ft. (Large Trunk)	3000	LF	\$ 90	\$ 270,000
4.3	15-20 ft. (Large Trunk)	0	LF	\$ 120	\$ -
5.0	Surface Repair				
5.1	Natural Ground	3250	LF	\$ 8	\$ 26,000
5.2	10-20' Depth (Asphalt - ½ Street)	150	LF	\$ 65	\$ 9,750
6.0	Manholes				
6.1	48" Manholes, 10-20 ft.	8	EA	\$ 5,000	\$ 40,000
6.2	Abandon Existing Manhole	0	EA	\$ 1,500	\$ -
7.0	Miscellaneous Other				
7.1	Bypass Pumping	0	DAYS	\$ 1,500	\$ -
7.2	Stormwater Management	1	LS	\$ 5,000	\$ 5,000
ESTIMATED CONSTRUCTION COST ¹					\$ 633,000
	Project Soft Costs ²	15%			\$ 95,000
	Contingency	25%			\$ 158,000
TOTAL PROBABLE COST IN 2021 Dollars ³					\$ 886,000
CLIENT PROJECT NO.:		J-U-B PROJECT NO.: 80-19-008			

1 - Construction cost includes mobilization and costs related to construction. No engineering costs have been added. Costs associated with special funding requirements such as Davis-Bacon prevailing wages and American Iron and Steel (AIS) are not included. Additional costs associated with rock trenching are not included.

2 - Soft costs include: engineering, design, construction assistance, survey, geotechnical subconsultant and record drawings. No easement acquisition or legal costs are included.

3 - Costs are in 2021 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes.



J-U-B ENGINEERS, INC.

400 Memorial Dr. Idaho Falls, ID 83402 208.932.4486

Opinion of Probable Project Cost

B	South West Regional Gravity Sewer and Lift Station	Revision Date: Jun-2021			
		ESTIMATED IMPROVEMENT COST: \$ 1,848,000			
ITEM No.	Description	Est. Quant.	Unit	Unit Price	Total Price
1.0	Mobilization (5%)	1	LS	\$ 62,880	\$ 62,880
2.0	Construction Traffic Control	10	DAYS	\$ 1,000	\$ 10,000
3.0	Gravity Sewer Pipe				
3.1	10" PVC Gravity Sewer Pipe and Bedding	1750	LF	\$ 27	\$ 47,250
3.2	Dewatering - Minor (< 15 ft)	0	LF	\$ 10	\$ -
3.3	Dewatering - Major (> 15 ft)	1750	LF	\$ 25	\$ 43,750
4.0	Single Line Pressure Sewer Pipe				
4.1	8" PVC Pressure Sewer Pipe and Bedding	1100	LF	\$ 30	\$ 33,000
5.0	Single Pipe Trench Excav./Backfill				
5.1	0-8 ft. Pressure	1100	LF	\$ 25	\$ 27,500
5.2	0-10 ft. (Large Trunk)	0	LF	\$ 60	\$ -
5.3	10-15 ft. (Large Trunk)	0	LF	\$ 90	\$ -
5.4	15-20 ft. (Large Trunk)	850	LF	\$ 120	\$ 102,000
5.5	20-25 ft. (Large Trunk)	900	LF	\$ 150	\$ 135,000
6.0	Pressure Fittings and Appurtenances				
6.1	8" Bend	3	EA	\$ 1,750	\$ 5,250
6.2	Isolation Valves, 6" to 12"	1	EA	\$ 3,000	\$ 3,000
6.3	Install Thrust Block	2	EA	\$ 3,000	\$ 6,000
6.4	Air-Vac Valves, Single	1	EA	\$ 9,700	\$ 9,700
6.5	Discharge Structure	1	EA	\$ 5,000	\$ 5,000
7.0	Surface Repair				
7.1	Natural Ground	1750	LF	\$ 8	\$ 14,000
7.2	0-10' Depth (Asphalt - ¼ Street)	1100	LF	\$ 40	\$ 44,000
7.3	10-20' Depth (Asphalt - ½ Street)	0	LF	\$ 65	\$ -
7.4	20-30' Depth (Asphalt - Full Street)	0	LF	\$ 130	\$ -
8.0	Manholes				
8.1	48" Manholes, 10-20 ft.	2	EA	\$ 5,000	\$ 10,000
8.2	48" Manholes, 20-30 ft.	2	EA	\$ 12,000	\$ 24,000
8.3	Abandon Existing Manhole	0	EA	\$ 1,500	\$ -
9.0	Lift Stations				
9.1	South West Regional LS - (400 GPM, submersible, duplex)	1	LS	\$ 700,000	\$ 700,000
10.0	Miscellaneous Other				
10.1	Bypass Pumping	2	DAYS	\$ 1,500	\$ 3,000
10.2	Dewatering	1	LS	\$ 30,000	\$ 30,000
10.3	Stormwater Management	1	LS	\$ 5,000	\$ 5,000
ESTIMATED CONSTRUCTION COST¹					\$ 1,320,000
<i>Project Soft Costs²</i>		15%			\$ 198,000
<i>Contingency</i>		25%			\$ 330,000
TOTAL PROBABLE COST IN 2021 Dollars³					\$ 1,848,000
CLIENT PROJECT NO.:		J-U-B PROJECT NO.: 80-19-008			

1 - Construction cost includes mobilization and costs related to construction. No engineering costs have been added. Costs associated with special funding requirements such as Davis-Bacon prevailing wages and American Iron and Steel (AIS) are not included. Additional costs associated with rock trenching are not included.

2 - Soft costs include: engineering, design, construction assistance, survey, geotechnical subconsultant and record drawings. No easement acquisition or legal costs are included.

3 - Costs are in 2021 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes.



J-U-B ENGINEERS, INC.

400 Memorial Dr. Idaho Falls, ID 83402 208.932.4486

Opinion of Probable Project Cost

C Hansen Lift Station Upgrade Phase 1		Revision Date: Jun-2021			
		ESTIMATED IMPROVEMENT COST: \$ 151,000			
ITEM No.	Description	Est. Quant.	Unit	Unit Price	Total Price
1.0	Mobilization (5%)	1	LS	\$ 5,000	\$ 5,000
2.0	Lift Stations				
2.1	Lift Station Upgrades (1,450 gpm, tri-plex)	1	LS	\$ 100,000	\$ 100,000
3.0	Miscellaneous Other				
3.1	Bypass Pumping	2	DAYS	\$ 1,500	\$ 3,000
	ESTIMATED CONSTRUCTION COST¹				\$ 108,000
	<i>Project Soft Costs²</i>	15%			\$ 16,000
	<i>Contingency</i>	25%			\$ 27,000
	TOTAL PROBABLE COST IN 2021 Dollars³				\$ 151,000
CLIENT PROJECT NO.:		J-U-B PROJECT NO.: 80-19-008			

1 - Construction cost includes mobilization and costs related to construction. No engineering costs have been added. Costs associated with special funding requirements such as Davis-Bacon prevailing wages and American Iron and Steel (AIS) are not included. Additional costs associated with rock trenching are not included.

2 - Soft costs include: engineering, design, construction assistance, survey, geotechnical subconsultant and record drawings. No easement acquisition or legal costs are included.

3 - Costs are in 2021 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes.



J-U-B ENGINEERS, INC.

400 Memorial Dr. Idaho Falls, ID 83402 208.932.4486

Opinion of Probable Project Cost

D <i>Sierra Drive Road Upsize</i>		Revision Date: Jun-2021			
		ESTIMATED IMPROVEMENT COST: \$ 1,043,000			
ITEM No.	Description	Est. Quant.	Unit	Unit Price	Total Price
1.0	Mobilization (5%)	1	LS	\$ 35,470	\$ 35,470
2.0	Construction Traffic Control	5	DAYS	\$ 1,000	\$ 5,000
3.0	Gravity Sewer Pipe				
3.1	24" PVC Gravity Sewer Pipe and Bedding	2600	LF	\$ 85	\$ 221,000
3.2	Remove and Dispose of 12" Sewer Pipe	2600	LF	\$ 25	\$ 65,000
3.3	Dewatering - Minor (< 15 ft)	2600	LF	\$ 10	\$ 26,000
3.4	Connect to Existing	3	EA	\$ 5,500	\$ 16,500
4.0	Single Pipe Trench Excav./Backfill				
4.1	0-10 ft. (Large Trunk)	0	LF	\$ 60	\$ -
4.2	10-15 ft. (Large Trunk)	2600	LF	\$ 90	\$ 234,000
4.3	15-20 ft. (Large Trunk)	0	LF	\$ 120	\$ -
5.0	Surface Repair				
5.1	Natural Ground	2100	LF	\$ 8	\$ 16,800
5.2	10-20' Depth (Asphalt - ½ Street)	500	LF	\$ 65	\$ 32,500
6.0	Manholes				
6.1	48" Manholes, 10-20 ft.	10	EA	\$ 5,000	\$ 50,000
6.2	Abandon Existing Manhole	10	EA	\$ 1,500	\$ 15,000
7.0	Miscellaneous Other				
7.1	Bypass Pumping	15	DAYS	\$ 1,500	\$ 22,500
7.2	Stormwater Management	1	LS	\$ 5,000	\$ 5,000
ESTIMATED CONSTRUCTION COST¹					\$ 745,000
	<i>Project Soft Costs²</i>	15%			\$ 112,000
	<i>Contingency</i>	25%			\$ 186,000
TOTAL PROBABLE COST IN 2021 Dollars³					\$ 1,043,000
CLIENT PROJECT NO.:		J-U-B PROJECT NO.: 80-19-008			

1 - Construction cost includes mobilization and costs related to construction. No engineering costs have been added. Costs associated with special funding requirements such as Davis-Bacon prevailing wages and American Iron and Steel (AIS) are not included. Additional costs associated with rock trenching are not included.

2 - Soft costs include: engineering, design, construction assistance, survey, geotechnical subconsultant and record drawings. No easement acquisition or legal costs are included.

3 - Costs are in 2021 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes.



J-U-B ENGINEERS, INC.

400 Memorial Dr. Idaho Falls, ID 83402 208.932.4486

Opinion of Probable Project Cost

E Hansen Lift Station Upgrade Phase 2		Revision Date: Jun-2021			
		ESTIMATED IMPROVEMENT COST: \$ 3,660,000			
ITEM No.	Description	Est. Quant.	Unit	Unit Price	Total Price
1.0	Mobilization (5%)	1	LS	\$ 10,000	\$ 10,000
2.0	Lift Stations				
2.1	Lift Station Upgrades (4,275 gpm, tri-plex)	2	LS	\$ 100,000	\$ 200,000
3.0	Single Line Pressure Sewer Pipe				
3.1	18" PVC Pressure Sewer Pipe and Bedding	12800	LF	\$ 90	\$ 1,152,000
4.0	Single Pipe Trench Excav./Backfill				
4.1	0-8 ft. Pressure	12800	LF	\$ 25	\$ 320,000
5.0	Pressure Fittings and Appurtenances				
5.1	18" Bend	12	EA	\$ 4,000	\$ 48,000
5.2	Isolation Valves, 14" to 24"	4	EA	\$ 7,500	\$ 30,000
5.3	Install Thrust Block	12	EA	\$ 3,000	\$ 36,000
5.4	Air-Vac Valves, Single	4	EA	\$ 9,700	\$ 38,800
6.0	Surface Repair				
6.1	0-10' Depth (Asphalt - ¼ Street)	12800	LF	\$ 40	\$ 512,000
7.0	Miscellaneous Other				
7.1	Bypass Pumping	45	DAYS	\$ 1,500	\$ 67,500
7.2	Major Arterial Crossing (Gravity Boring)	1	EA	\$ 150,000	\$ 150,000
7.3	Irrigation Canal/Drain Crossing (Open Trench)	1	EA	\$ 50,000	\$ 50,000
ESTIMATED CONSTRUCTION COST ¹					\$ 2,614,000
Project Soft Costs ²		15%			\$ 392,000
Contingency		25%			\$ 654,000
TOTAL PROBABLE COST IN 2021 Dollars ³					\$ 3,660,000
CLIENT PROJECT NO.:		J-U-B PROJECT NO.: 80-19-008			

1 - Construction cost includes mobilization and costs related to construction. No engineering costs have been added. Costs associated with special funding requirements such as Davis-Bacon prevailing wages and American Iron and Steel (AIS) are not included. Additional costs associated with rock trenching are not included.

2 - Soft costs include: engineering, design, construction assistance, survey, geotechnical subconsultant and record drawings. No easement acquisition or legal costs are included.

3 - Costs are in 2021 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes.



J-U-B ENGINEERS, INC.

400 Memorial Dr. Idaho Falls, ID 83402 208.932.4486

Opinion of Probable Project Cost

F <i>Hollow Road Diversion and Gravity Sewer</i>		Revision Date: Jun-2021			
		ESTIMATED IMPROVEMENT COST: \$ 558,000			
ITEM No.	Description	Est. Quant.	Unit	Unit Price	Total Price
1.0	Mobilization (5%)	1	LS	\$ 18,950	\$ 18,950
2.0	Construction Traffic Control	10	DAYS	\$ 1,000	\$ 10,000
3.0	Gravity Sewer Pipe				
3.1	8" PVC Gravity Sewer Pipe and Bedding	1100	LF	\$ 24	\$ 26,400
3.2	Dewatering - Minor (< 15 ft)	1100	LF	\$ 10	\$ 11,000
3.3	Dewatering - Major (> 15 ft)	0	LF	\$ 25	\$ -
3.4	Connect to Existing	2	EA	\$ 5,500	\$ 11,000
4.0	Single Pipe Trench Excav./Backfill				
4.1	0-10 ft. (Large Trunk)	0	LF	\$ 60	\$ -
4.2	10-15 ft. (Large Trunk)	1100	LF	\$ 90	\$ 99,000
4.3	15-20 ft. (Large Trunk)	0	LF	\$ 120	\$ -
4.4	20-25 ft. (Large Trunk)	0	LF	\$ 150	\$ -
5.0	Surface Repair				
5.1	10-20' Depth (Asphalt - ½ Street)	1100	LF	\$ 65	\$ 71,500
5.2	20-30' Depth (Asphalt - Full Street)	0	LF	\$ 130	\$ -
6.0	Manholes				
6.1	48" Manholes, 10-20 ft.	3	EA	\$ 5,000	\$ 15,000
6.2	48" Manholes, 20-30 ft.	0	EA	\$ 12,000	\$ -
6.3	Abandon Existing Manhole	0	EA	\$ 1,500	\$ -
6.4	Diversion Structure	1	EA	\$ 20,000	\$ 20,000
7.0	Miscellaneous Other				
7.1	Major Arterial Crossing (Open Trench)	1	DAYS	\$ 100,000	\$ 100,000
7.2	Bypass Pumping	5	DAYS	\$ 1,500	\$ 7,500
7.3	Stormwater Management	1	LS	\$ 7,500	\$ 7,500
	ESTIMATED CONSTRUCTION COST¹				\$ 398,000
	<i>Project Soft Costs²</i>	15%			\$ 60,000
	<i>Contingency</i>	25%			\$ 100,000
	TOTAL PROBABLE COST IN 2021 Dollars³				\$ 558,000
CLIENT PROJECT NO.:		J-U-B PROJECT NO.: 80-19-008			

1 - Construction cost includes mobilization and costs related to construction. No engineering costs have been added. Costs associated with special funding requirements such as Davis-Bacon prevailing wages and American Iron and Steel (AIS) are not included. Additional costs associated with rock trenching are not included.

2 - Soft costs include: engineering, design, construction assistance, survey, geotechnical subconsultant and record drawings. No easement acquisition or legal costs are included.

3 - Costs are in 2021 dollars and should be inflated appropriately to the mid-point of construction for budgeting purposes.

APPENDIX D

UAC Impact Fee Act

Part 3

Establishing an Impact Fee

11-36a-301 Impact fee facilities plan.

- (1) Before imposing an impact fee, each local political subdivision or private entity shall, except as provided in Subsection (3), prepare an impact fee facilities plan to determine the public facilities required to serve development resulting from new development activity.
- (2) A municipality or county need not prepare a separate impact fee facilities plan if the general plan required by Section 10-9a-401 or 17-27a-401, respectively, contains the elements required by Section 11-36a-302.
- (3) A local political subdivision or a private entity with a population, or serving a population, of less than 5,000 as of the last federal census that charges impact fees of less than \$250,000 annually need not comply with the impact fee facilities plan requirements of this part, but shall ensure that:
 - (a) the impact fees that the local political subdivision or private entity imposes are based upon a reasonable plan that otherwise complies with the common law and this chapter; and
 - (b) each applicable notice required by this chapter is given.

Amended by Chapter 200, 2013 General Session

11-36a-302 Impact fee facilities plan requirements -- Limitations -- School district or charter school.

- (1)
 - (a) An impact fee facilities plan shall:
 - (i) identify the existing level of service;
 - (ii) subject to Subsection (1)(c), 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 public 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.
 - (b) A proposed level of service may diminish or equal the existing level of service.
 - (c) A 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.
- (2) 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) impact fees; and

- (e) anticipated or accepted dedications of system improvements.
- (3) A local political subdivision or private entity may only impose impact fees on development activities when the local political subdivision's or private entity's plan for financing system improvements establishes that impact fees are necessary to maintain a proposed level of service that complies with Subsection (1)(b) or (c).
- (4)
 - (a) Subject to Subsection (4)(c), the impact fee facilities plan shall include a public facility for which an impact fee may be charged or required for a school district or charter school if the local political subdivision is aware of the planned location of the school district facility or charter school:
 - (i) through the planning process; or
 - (ii) after receiving a written request from a school district or charter school that the public facility be included in the impact fee facilities plan.
 - (b) If necessary, a local political subdivision or private entity shall amend the impact fee facilities plan to reflect a public facility described in Subsection (4)(a).
 - (c)
 - (i) In accordance with Subsections 10-9a-305(3) and 17-27a-305(3), a local political subdivision may not require a school district or charter school to participate in the cost of any roadway or sidewalk.
 - (ii) Notwithstanding Subsection (4)(c)(i), if a school district or charter school agrees to build a roadway or sidewalk, the roadway or sidewalk shall be included in the impact fee facilities plan if the local jurisdiction has an impact fee facilities plan for roads and sidewalks.

Amended by Chapter 200, 2013 General Session

11-36a-303 Impact fee analysis.

- (1) Subject to the notice requirements of Section 11-36a-504, each local political subdivision or private entity intending to impose an impact fee shall prepare a written analysis of each impact fee.
- (2) Each local political subdivision or private entity that prepares an impact fee analysis under Subsection (1) shall also prepare a summary of the impact fee analysis designed to be understood by a lay person.

Enacted by Chapter 47, 2011 General Session

11-36a-304 Impact fee analysis requirements.

- (1) An impact fee analysis shall:
 - (a) identify the anticipated impact on or consumption of any existing capacity of a public facility by the anticipated development activity;
 - (b) identify the anticipated impact on system improvements required by the anticipated development activity to maintain the established level of service for each public facility;
 - (c) subject to Subsection (2), demonstrate how the anticipated impacts described in Subsections (1)(a) and (b) are reasonably related to the anticipated development activity;
 - (d) estimate the proportionate share of:
 - (i) the costs for existing capacity that will be recouped; and
 - (ii) the costs of impacts on system improvements that are reasonably related to the new development activity; and
 - (e) based on the requirements of this chapter, identify how the impact fee was calculated.

- (2) In analyzing whether or not the proportionate share of the costs of public facilities are reasonably related to the new development activity, the local political subdivision or private entity, as the case may be, shall identify, if applicable:
- (a) the cost of each existing public facility that has excess capacity to serve the anticipated development resulting from the new development activity;
 - (b) the cost of system improvements for each public facility;
 - (c) other than impact fees, the manner of financing for each public facility, such as user charges, special assessments, bonded indebtedness, general taxes, or federal grants;
 - (d) the relative extent to which development activity will contribute to financing the excess capacity of and system improvements for each existing public facility, by such means as user charges, special assessments, or payment from the proceeds of general taxes;
 - (e) the relative extent to which development activity will contribute to the cost of existing public facilities and system improvements in the future;
 - (f) the extent to which the development activity is entitled to a credit against impact fees because the development activity will dedicate system improvements or public facilities that will offset the demand for system improvements, inside or outside the proposed development;
 - (g) extraordinary costs, if any, in servicing the newly developed properties; and
 - (h) the time-price differential inherent in fair comparisons of amounts paid at different times.

Enacted by Chapter 47, 2011 General Session

11-36a-305 Calculating impact fees.

- (1) In calculating an impact fee, a local political subdivision or private entity may include:
- (a) the construction contract price;
 - (b) the cost of acquiring land, improvements, materials, and fixtures;
 - (c) the cost for planning, surveying, and engineering fees for services provided for and directly related to the construction of the system improvements; and
 - (d) for a political subdivision, debt service charges, if the political subdivision might use impact fees as a revenue stream to pay the principal and interest on bonds, notes, or other obligations issued to finance the costs of the system improvements.
- (2) In calculating an impact fee, each local political subdivision or private entity shall base amounts calculated under Subsection (1) on realistic estimates, and the assumptions underlying those estimates shall be disclosed in the impact fee analysis.

Enacted by Chapter 47, 2011 General Session

11-36a-306 Certification of impact fee analysis.

- (1) An impact fee facilities plan shall include a written certification from the person or entity that prepares the impact fee facilities plan that states the following: "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. 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; 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."
- (2) An impact fee analysis shall include a written certification from the person or entity that prepares the impact fee analysis which states as follows:"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 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;
 - 3. offsets costs with grants or other alternate sources of payment; and
 - 4. complies in each and every relevant respect with the Impact Fees Act."

Amended by Chapter 278, 2013 General Session

Agenda Item #8

Description	Workshop: Discussion of Nuisance Violation & Enforcement Processes
Presenter	Levi Roberts, City Planner
Recommendation	Discuss and give direction staff direction for moving forward.
Reviewed By	City Manager, City Recorder

Background:

Nibley City Code Section 7.02 provides the conditions and procedures for mitigating nuisance conditions in the City. The Code defines a nuisance as:

Whatever is dangerous to human life or health, deleterious, injurious, noxious, unsightly and whatever renders soil, air, water or food impure or unwholesome, which includes but is not limited to conditions described in this chapter.

Code Enforcement Staff has been working to address several nuisance-related issues this year. Though the process, Staff is learning about the effectiveness and issues with the ordinance and appropriate process to abate nuisance conditions.

Staff will present to Council:

1. The existing nuisance process, as defined by NCC 7.02 and refined by Staff
2. Summary and status of nuisance violations in 2021
3. Appeal cases and issues.
4. A general summary of nuisance-related issues for discussion.

Based upon this presentation, Staff recommends that the Council discuss specific issues to improve the nuisance abatement process and give potential direction to Staff moving forward.

Nibley City Code Enforcement

NIBLEY CITY COUNCIL

JULY 22, 2021

Overview

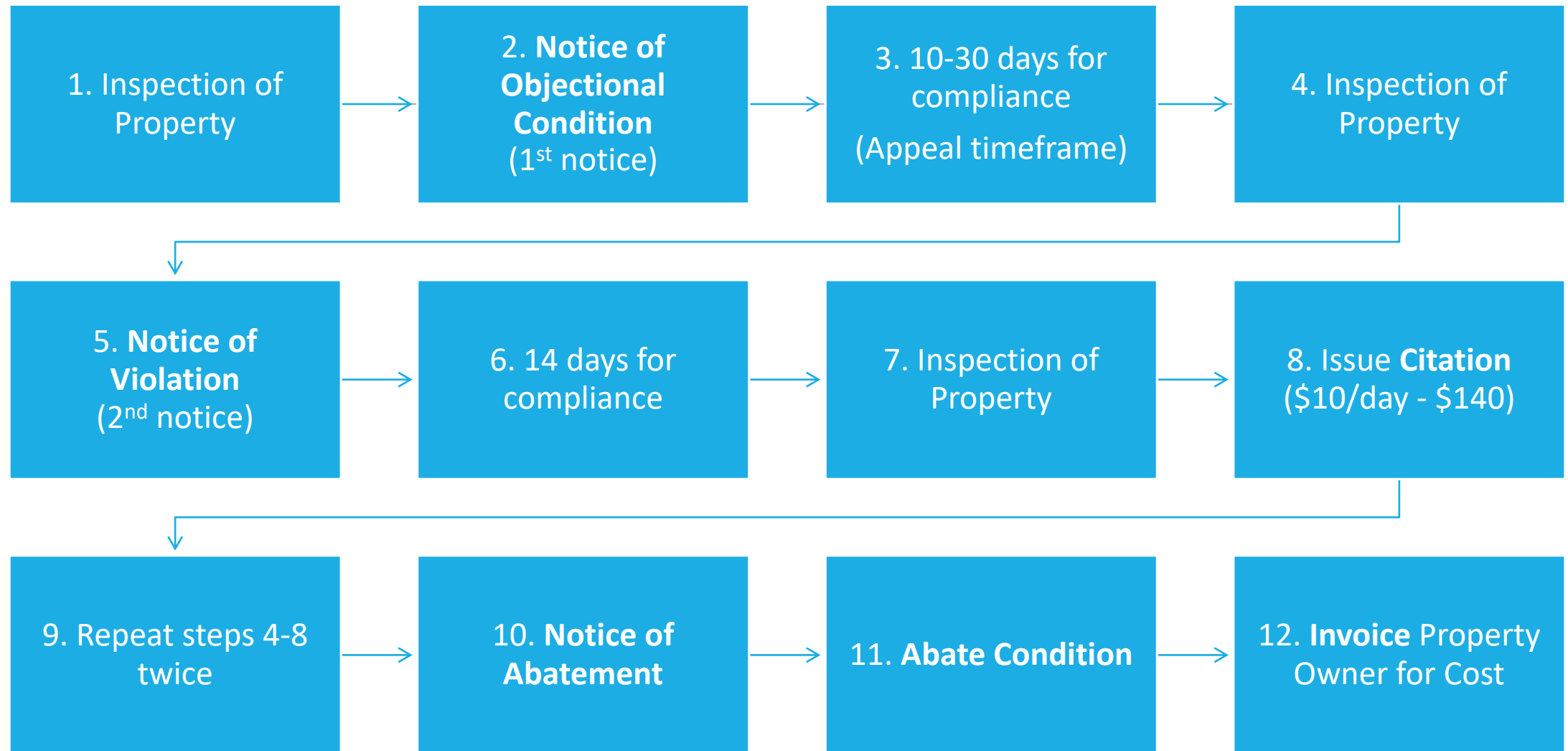
Code Enforcement Process

Summary and Status of Code Enforcement for 2021

Appeals in 2021

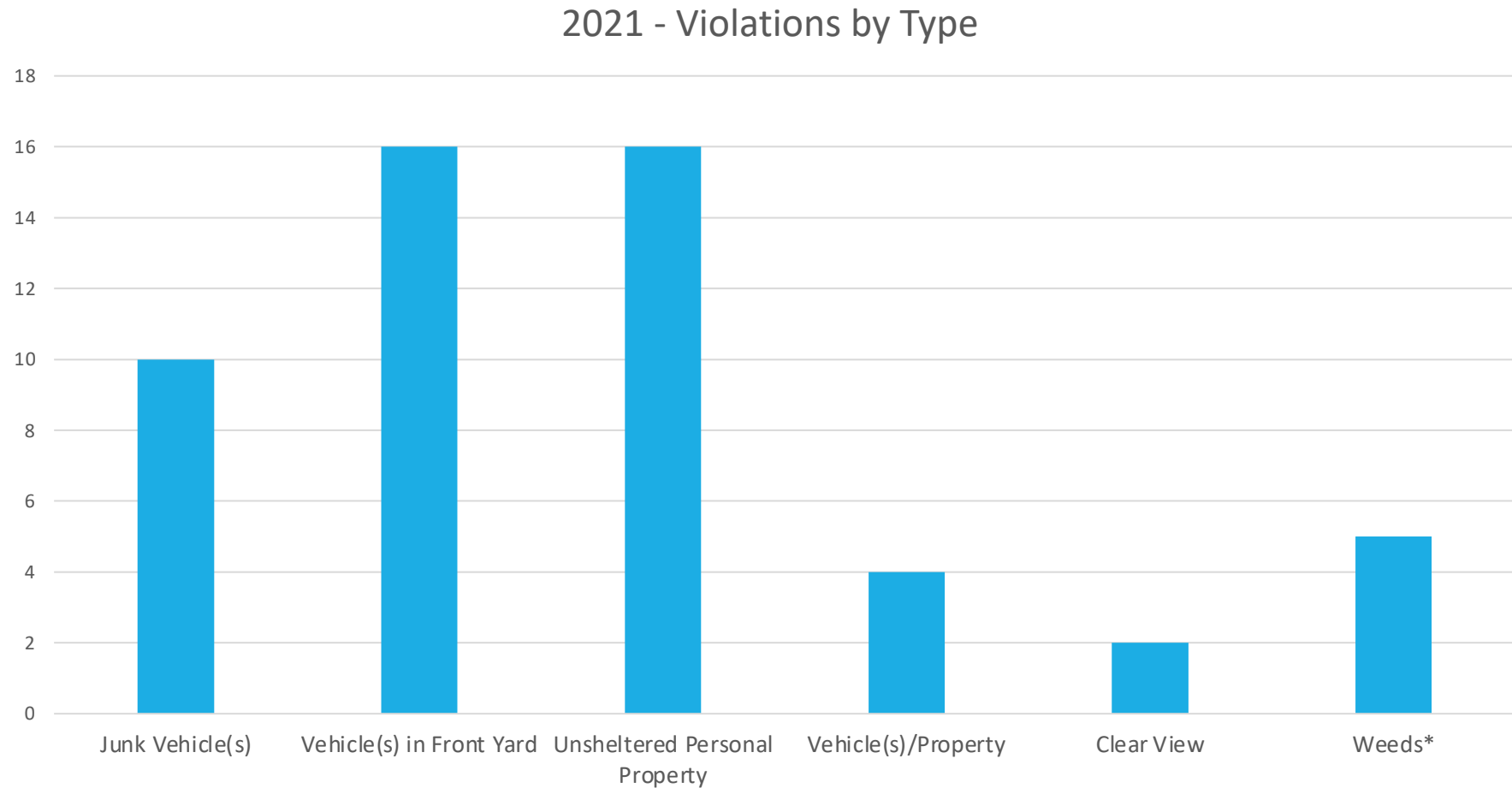
Summary of Issues and Concerns

Code Enforcement Process

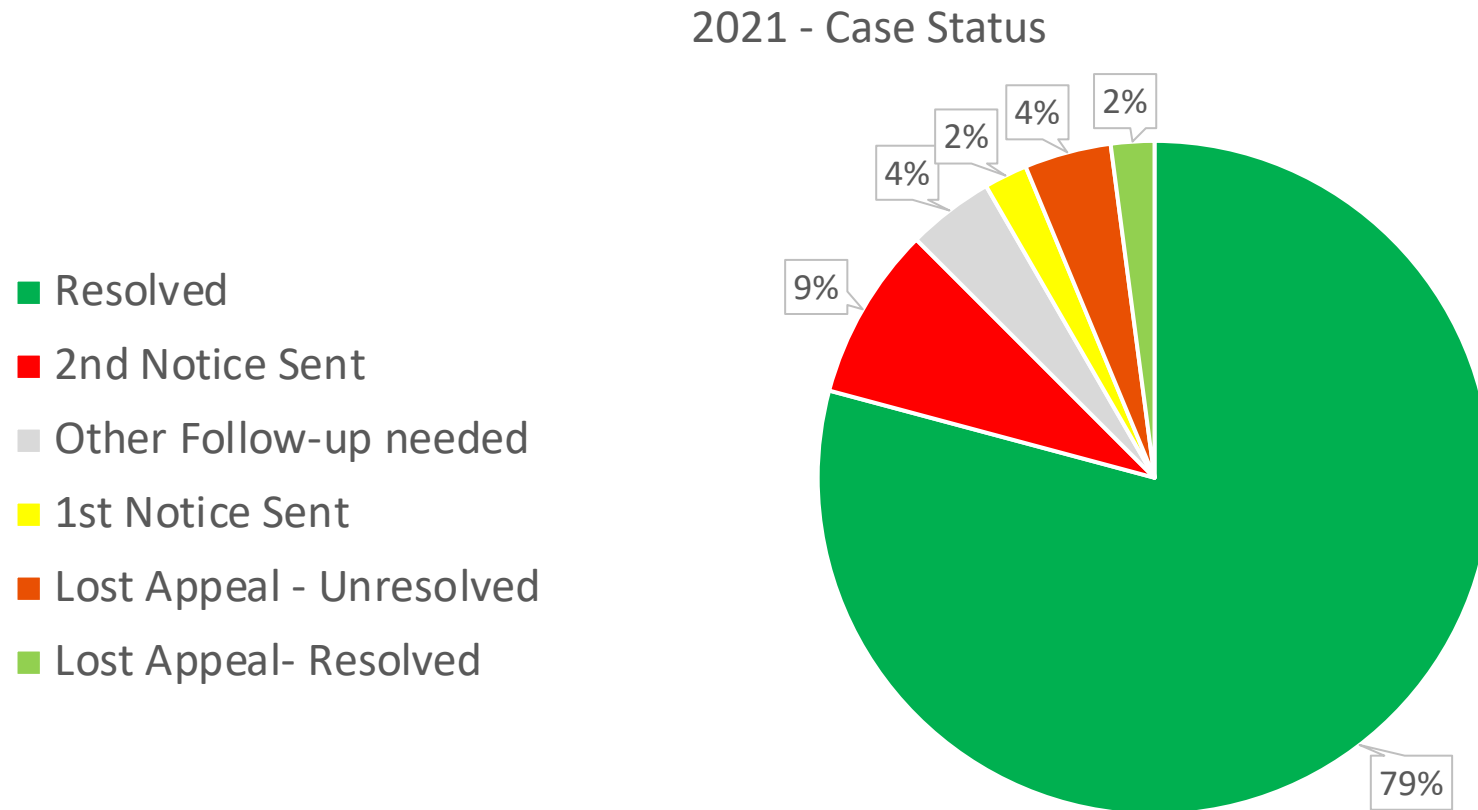


2021- Summary of Violations

53 Violations
observed



2021- Summary of Violations



Before



After



Before



After



Before



After





Before

2nd Notice



After





Appeal Cases

2021 - Summary of Nuisance Appeals

- 5 Requested Appeals
- 3 Appeal Hearings held, 1 case resolved, 1 denied (requested after timeframe)
- Scope of Appeal- Determine if violation occurred and if abatement is necessary
- All 3 Appeals Lost
- Approximate Cost to City - \$2,000 (not including Staff time)

Code Enforcement Issues

Low-level vs. High-level offenses

Vague/unclear definitions

Rigid Process- no wiggle room for negotiating timeframes

No barrier to appeal, high cost to City

Collection

Agenda Item #9

Description	Discussion & Consideration – Resolution 21-20: Amending Nibley City's Consolidated Fee Schedule: Appeal and Variance Applications (Second Reading)
Presenter	Levi Roberts, City Planner
Recommendation	Move to approve Resolution 21-20: Amending Nibley City's Consolidated Fee Schedule: Appeal and Variance Applications
Reviewed By	Mayor, City Manager, City Planner

Background:

Since first reading, the recommended changes were included, specifically to increase the variance request fee to \$1,000 and leave the appeal fee at \$750.

Also included is clarification that a land use appeal will be charged the same fee as a nuisance violation appeal (unless the Council would like it to be different).

Staff has also become aware that the fee schedule under the building permit section needed to be updated. City Council passed amended Transportation Impact Fees in October of 2019. The City has been charging those fees since that time, however, the fee schedule was not amended to match. The changes included bring the fee schedule into line with the ordinance, and what has been charged on building permits.

Previous Background: Staff has been trying to increase effectiveness of code enforcement and nuisance violations and has been working on a better process. While working through those issues, it was brought to our attention that the fees being charged to appeal a nuisance violation or to apply for a variance, are disproportionate to the level of staff time, as well as the charges for the hearing officer to hear the appeal.

Staff did some research what other Cities around the valley are charging and found it to vary from City to City.

Providence Variance: \$1000.00, Violations go through court system with a citation from the Sheriff. (This is how we used to do it).

North Logan: Works to change the code if a variance is requested, for nuisance violations they send letter to correct and issues a citation, no option to appeal.

Logan: Variance \$200, Appeal \$0.00

Smithfield: \$400+50\$ per hour after 5 hours for variances and appeals.

Currently Nibley City charges \$200.00 for a variance request and \$0.00 for an appeal.

Previous expenses to the City for variances and appeals have cost between \$600 and \$1,000 per issue.

Staff is recommending increasing the fee for both a variance request and an appeal for a nuisance violation to \$750.00.

RESOLUTION 21-20

A RESOLUTION UPDATING NIBLEY CITY'S CONSOLIDATED FEE SCHEDULE; APPEAL FEES

WHEREAS, State Law and the City Code empower the Nibley City Council to set rates and charge fees for services provided by the City;

WHEREAS, the City has historically set rates and fees for services through various resolutions from time to time as needed;

WHEREAS, the City Council finds that it is in the best interest of the City and its residents to update the consolidated schedule of all existing rates and fees and to review and update the schedule as needed;

WHEREAS, the rate charged for variance requests and appeal to nuisance violations has been found to be disproportionate with the associated costs to the City.

NOW, THEREFORE, IT IS HEREBY RESOLVED BY THE NIBLEY CITY COUNCIL THAT:

1. The rate charged for variance requests and appeals to nuisance violations shall be changed to \$750.00.
2. The Consolidated Fee Schedule attached hereto as Exhibit A and the rates, fees, and charges set forth therein are hereby enacted and adopted.
3. This Resolution does not repeal, abrogate, annul, or impair in any way the existing resolutions or ordinances of the City except to modify the rates, fees, and charges reflected in the Consolidated Fee Schedule. All rates, fees, or charges not listed in the Consolidated Fee Schedule which are contained in or promulgated pursuant to any current resolution or ordinance shall remain in full force and effect, unless and until duly modified. All resolutions or ordinances which set forth rates, fees, or charges which are contained in the Consolidated Fee Schedule are hereby superseded by the Consolidated Fee Schedule.
4. This Resolution shall become effective immediately upon passage.

ADOPTED BY THE NIBLEY CITY COUNCIL THIS 10 DAY OF September, 2020.

Shaun Dustin, Mayor

ATTEST:

Cheryl Bodily, City Recorder

Utility Service Fees	
Item	Rate
Water	
Base Rate	
1" Water Service	\$ 15.50
2" Water Service	\$ 35.00
3" Water Service	\$ 65.00
4" Water Service	\$ 90.00
5" Water Service	\$ 95.00
6" Water Service	\$ 105.00
Rate per 1,000 gallons	
0-5,000 Gallons	Included in base rate
5,001 - 40,000	\$ 1.05
40,001 - 65,000	\$ 1.10
65,001 - 100,000	\$ 1.15
100,001 +	\$ 1.35
Townhouse Meters	
Water Reconnect/Disconnect Fee	\$ 50.00
Extra Territorial Rate	2 X base & usage
Water Stock/Right Contribution Waiver	\$ 2500.00 Per Acre-Foot Required
Sewer	
Residential Rate	\$ 52.00
Commercial #1 (0 - 7,000 Gal)	\$ 52.00
Commercial #2 (7,001 - 15,000 Gal)	\$ 104.00
Commercial #3 (15,001 - 25,000 Gal)	\$ 156.00
Commercial #4 (25,001 - 50,000 Gal)	\$ 208.00
Commercial #5 (50,000 Gal & Up)	Manual Calculation
Pretreatment	Pass through from Logan City
Stormwater	
Residential	\$ 7.75
Commercial	(Sq. ft. of impervious surface/3,000) x Residential Rate
Utility Billing Penalties	
Late Fee	\$ 5.00
Late Fee Penalty (Calculated from past due balance)	0.0175
Insufficient Funds Fee	\$ 30.00
Non-Payment Disconnect/Reconnect Fee	\$ 50.00
Door Hanger Fee	\$ 25.00

Business Licenses & Fees

Item	Rate
Business License Application Fee	\$ 30.00
Home Business License Annual Fee (Jan-Dec)	\$ 30.00
Commercial & Industrial Business License Initial Fee (Jan-Dec)	\$ 250.00
Commercial & Industrial Business License Renewal Fee (Jan-Dec)	\$ 150.00
Temporary Vendor/Solicitors Business License (6 Months)	\$ 30.00
Class B Retail License (Jan-Dec)	\$ 250.00
Late Fee (March 1st)	\$ 10.00
Fire Marshall Inspection	As charged by Cache County

Building Permits & Impact Fees

Impact Fees

Item	Rate
Sewer Impact Fee 1" Service	\$ 1,725.00
Sewer Impact Fee 1.5" Service	\$ 3,450.00
Sewer Impact Fee 2" Service	\$ 5,520.00
Sewer Impact Fee 3" Service	\$ 10,349.00
Sewer Impact Fee 4" Service	\$ 20,698.00
Water Impact Fee 1" Service	\$ 1,950.00
Water Impact Fee 1.5" Service	\$ 3,900.00
Water Impact Fee 2" Service	\$ 6,241.00
Water Impact Fee 3" Service	\$ 11,701.00
Water Impact Fee 4" Service	\$ 23,403.00
Park Impact Fee	\$ 4,500.00
Street Impact Fee Apartment	\$ 688.00
Street Impact Fee Condominium/Townhouse	\$ 688.00
Street Impact Fee Church	\$ 445.00
Street Impact Fee Education	\$ 618.00
Street Impact Fee food Service/Fast Food	\$ 4,363.00
Street Impact Fee Gas Station Convenient Fee	\$ 7,950.00
Street Impact Fee Hotel	\$ 436.00
Street Impact Fee Light Industrial	\$ 341.00
Street Impact Fee Office	\$ 1,107.00
Street Impact Fee Retail	\$ 2,803.00
Street Impact Fee Residential Home	\$ 887.00
Street Impact Fee Warehousing	\$ 242 per 1,000 sq. feet
Residential Single Family per unit	\$ 887.00
Residential Multi-Family per unit	\$ 688.00
Mobile Home per unit	\$ 470.00
Shopping Center per 1,000 sf	\$ 2,342.00
Office per 1,000 sf	\$ 1,522.00
Light Industrial per 1,000 sf	\$ 466.00
Warehouse per 1,000 sf	\$ 164.00
Institutional per 1,000 sf	\$ 1,426.00
Hotel per 1,000 sf	\$ 786.00
Food/Fast Food per 1,000 sf	\$ 11,257.00
Gas Station/Conv per 1,000 sf	\$ 46,015.00

Building Permit Fees

Building Permit	Based on a formula
Plan Check Fee	Based on a formula
Water Connection Fee	\$ 700.00
Stormwater Inspection Fee Residential	\$ 150 Per Year

Development Fees

Water Meter 1"	\$ 700.00
Water Meter 2"	\$ 2,200.00
Water Meter 3"	\$ 2,994.00
Water Meter 4"	\$ 3,942.00
Water Meter 2" - 4 Townhomes	\$ 550.00

Water Meter 2" - 6 Townhomes	\$ 366.00
Water Meter Lid	\$ 50.00
Water Meter Ring or Collar	\$ 50.00
Water Meter Adjustment (Raise or Lower)	\$ 75.00
Road Cut Fee	\$ 3,000 (1/2 is refundable)
Street Sign	\$ 300.00
Sewer Valve Collar	\$ 450.00
Water Valve Collar	\$ 350.00
Stormwater Development Inspection Fee	\$ 500 Per Year
Stormwater for Regional Ponds	\$3,000 Per Lot
P & Z Misc. Applications (Example: building permits, rezone, concept plans, etc.)	\$ 30.00
Annexation Petition Application	\$ 200.00
Asphalt Preservation	.25 per Sq Foot
Miscellaneous Items	
Gas Meter Upgrade Inspection	\$ 25.00
Permanent Power Upgrade Inspection	\$ 25.00

Planning and Building Department Credit Card Convenience Fee	3% of Total Invoice
Logan Wastewater Treatment Impact Fee (Set by ordinance 20-15)	\$ 2,433.00
Logan Wastewater Treatment Impact Fee Collection Fee	\$ 150.00

Dog Licenses & Permits

Item	Rate
Dog Registration January-December Spayed/Neutered	\$ 15.00
Dog Registration January-December Unaltered	\$ 25.00
Dog Registration July-December Spayed/Neutered	\$ 7.50
Dog Registration July-December Unaltered	\$ 12.50
Multi-Dog Permit Fee - Yearly Renewal	\$ 30.00
Multi-Dog License Application Fee	\$ 30.00
Lost Tag	\$ 5.00
Late Fee (After March 1st)	\$ 10.00

Cache Humane Society Impound Service Fees	Please refer to contract
Impound Boarding Dog/Cat	\$ 150.00 Per Animal
Impound Other Domestic Animal Species	\$ 250.00 Per Animal
Cat Trap Neuter Release (TNR)	\$ 79.00 Per Cat
TNR excess boarding fee	\$ 30.00 Per Day or Partial Day
Quarantine Boarding Dog/Cat	\$ 350.00 Per Animal
Court-ordered Hold and Quarantines in Excess of 10 Days	\$ 35.00 Per Day
Dog Euthanasia & Disposal	\$ 50.00 - \$70.00 Based on Weight
Cat Euthanasia & Disposal	\$ 40.00
Emergency Veterinary Services	Minimum \$95 Per Hour
Late Payment Fee	\$ 20.00
Interest Rate	18% Per Annum

Charges for Services

Planning Review Fees

Item	Proposed Rate
Preliminary Plat Filing Fee	\$ 200 + \$10 per lot
Final Plat Filing Fee	\$ 200 + \$10 per lot
Engineering Development Review	\$1500 + \$50 per lot
Public Works Inspection Fee	0.075% of Bond Summary
Minor Subdivision	\$ 200 + \$10 per lot
Minor Subdivision Deposit	\$ 500.00
Accessory Building Application	\$ 30.00
Subdivision Amendment Application	\$ 30.00
Minor-Subdivision Application	\$ 30.00
RPUD Application	\$ 500.00
Misc. Planning & Development Application	\$ 30.00

Community Center Rental

Small Gathering - Resident	\$ 50.00
Small Gathering - Non-resident	\$ 100.00
Small Gathering - Deposit	\$ 150.00
Large Gathering - Resident	\$ 150.00
Large Gathering - Non-resident	\$ 300.00
Large Gathering - Deposit	\$ 150.00
Sanitation Cleaning Fee	\$ 50.00
Audio Visual Equipment Use	\$ 25.00
Audio Visual Equipment Deposit	\$ 200.00
Business, Club, & Public Meetings	Free, With City Manager Approval
Business, Club, & Public Meetings Deposit	\$ 50.00
Building Repair/Maintenance	\$ 20/HR + Repair Cost

Variance Request

Variance Request Application	\$ 1,000.00
Appeal	
Nuisance violation Appeal	\$ 750.00
Land use Appeal	\$ 750.00

Recreation

Facility Rentals

Item

Park Pavilion Rental (Heritage, Anhder, Virgil Gibbons, Elk Horn)

Park Pavilion Rental (Elk Horn with Kitchen)

Park Pavilion Rental Deposit (Elk Horn)

Single Use Athletic Field Rental (Per Field, Per Game/Practice)

Athletic Field Rental (Per Team, Per Season)

Anhder Park Field Lights (Per Day)

Field Preparation - Baseball/Softball (includes base setting, dragging, and lining the field)

Field Preparation - Athletic Field

Fitness Event Route Marking

Athletic field rental per camp/clinic/day up to 1-50 participants (may require pavilion rental)

Non-city recreation league field use per player

Tournament fee/DAY per athletic field use includes: 1 Baseball or Softball field, or 2 grass athletic fields, 1 baseball/softball field prep & pavilion rental if applicable, additional bathroom cleaning/day, and additional garbage removal @ athletic field

Tournament athletic field layout and lining (painted) on grass/per field (soccer, lacrosse, football, etc)

Tournament/Event Cleaning Deposit

Baseball portable mound placement/occurrence (dirt mound building for tournaments is NOT available)

Consessions permit/day (includes access to available onsite electrical outlets, however, a breaker reset for overloaded circuits incurs a \$25 fee per occurrence)
Event/League organizers are required to have a copy of food handlers permits onsite throughout the duration of the event

Amphitheatre rental/day (includes access to electricity)

Pickleball court rental/day (includes both courts @ Anhder Park)

Tennis court rental/day (also lined for 4 Pickleball courts @ Anhder Park portable nets NOT provided)

Use of city streets, and or park space for a fun run/walk, includes pavilion rental. Fee also applies to parades. Route layout provided by the organizer, must be approved 14 days prior to the event.

Per hour, per person of paint marking of a fun run/walk or other fitness event (painting arrows and or start & finish line, with washable paint, does NOT include directional traffic cones, road closed, detours, or other signage). Organizer pays estimate prior to event, billed the difference if actual cost more than estimate

Traffic Control set up per hour per person. Cones, baracades, road closed/detour for an event (ie fun run/walk fitness events, parades or similar) Organizer pays estimate prior to event, billed the difference if actual cost more than estimate

Ticketed event (including entrance fees and suggested donations for participation or entrance)

General Notes regarding Parks and Recreation facility rental	
Tournament/Event Cleaning Deposit	
Deposits are refundable if the facility/field is left clean and without damages. Depositors must cover the cost of additional cleaning or minor damage beyond normal use if such damage repairs resulting from use of any facility exceeds the deposit, the City reserves the right to retain any additional costs incurred.	
Inclimate Weather & Refund Policy	
The event/league organizer assumes the risk of cancelation due to inclement weather. Requests for re-scheduling due to inclement weather are based on facility availability and are subject to Nibley City only if alternate dates are available. Facility fees are non-refundable unless requested 14 days prior to the event.	
Movies:	
Use of any city property to show a movie requires proof of movie licensing, at least 30 days in advance. Event organizer requires an entrance fee including a suggested donation, a ticket, and audio/visual equipment and movie screen are NOT available to rent. Nibley City reserves the right to prohibit an outdoor movie if the proposed event is held within 30 days of a scheduled Nibley City outdoor movie.	
Fun Runs and outdoor fitness events:	
A pavilion rental is required (included in fee), if the start or finish line is in Nibley, the Nibley City Sheriff or equivalent is NOT included in the fee. The organizer may be responsible for portable restrooms based on estimated #'s. Nibley City reserves the right to prohibit a fun run or walk within 45 days of a scheduled Nibley City outdoor fun run/walk or similar Nibley City event.	
Field and street marking restrictions:	
All athletic field, event space, and/or street marking must be performed by Nibley City. Nibley City assumes costs for damages and/or cleaning. Failure to comply may also result in a fine.	
Per Player Non-city recreation league fee and fee determination:	
Per Player fee available to leagues that do not require a tryout and allow anyone to play. Nibley City Recreation Director will determine if a clinic/camp, per team, or per player fee is appropriate.	
Ticketed events	
All ticketed events must be pre-approved by the Nibley City Special Events Committee. Event insurance is required for these events and the event may require a permit. Nibley City does NOT provide any access control in the form of fencing, gates, cones, or barriers, but may provide existing fences already available at facility.	
Cache County School District, and Thomas Edison Charter School Use	
Nibley City reserves the right to waive fees and/or requirements except insurance for events held at Thomas Edison Charter School and Cache County School District schools, and a school PTA, based on shared use interlocal agreements.	
Baseball	
Classic T-Ball	
Rookie	
Minors	
Majors	
Pony	
Late Fee	
Softball	
Ponytail (6-8)	
Fast Pitch (10 & Under)	
Fast Pitch (12 & Under)	
Fast Pitch (14 & Under)	
Late Fee	

Super Start
T-Ball (3-4) Fee
Soccer (3-4) Fee
Late Fee
Flag Football
1st & 2nd Grade League
3rd & 4th Grade League
5th & 6th Grade League
7th & 8th Grade League
Late Fee
Soccer Spring & Fall
Kindergarten League
1st & 2nd Grade League
3rd & 4th Grade League
5th & 6th Grade League
7th & 8th Grade League
Late Fee
Reversible Soccer Jersey
Cancellation fees for all youth recreation programs
A registration refund for cancellation is available only if the cancellation request is prior to the coach meeting/jersey order. All cancellation requests are subject to the proposed 25% (of the total registration cost) fee.
Other NEW Youth sports, programs, camps, and or classes
The initial fee will be established at the discretion of the Recreation Director based on estimated costs, fees for similar programs, known and projected program interest, benefit. Program offerings that continue beyond a trial phase, will utilize actual costs to determine appropriate registration fees moving forward.
Equipment Rental
Disc Golf (Per Set)
Spikeball (Per Set)
Kubb (Per Set)
Equipment Deposit
Nibley Fit
Day Pass
Monthly Pass
Quarterly Pass
Staff has discretion to adjust pass prices for promotional events
Heritage Days
Booth Fees
Mayor's Dinner
Mayor's Dinner
Tournament Fee
Field Rental Baseball/Softball (Field Prep and lights additional)
Athletic Field Rental (Field Prep and lights additional)
League/Clinic Fee
Non City Sponsored League Team Per Season (Non Recreational Team)
League Team Per Season (Recreational Team)
Recreation Misc.

Rate	
\$	25.00
\$	50.00
\$	25.00
\$	35.00
\$	50.00
\$	20.00
\$	25.00
\$	45.00
\$	30.00
\$	50.00
\$	3.00
\$	225.00
\$	50.00
\$	300.00
\$	20.00
\$	20.00
\$	45.00
\$	45.00
\$	45.00
\$	75.00
\$	35.00
\$	75.00
\$	200.00

Totals/use/and fees	
deposits, if not refunded, are intended to is needed. If the cost of cleaning or serves the right to charge the user for	
ther, If event/league organizer and will be at the discretion of Nibley a refund has been requested in writing	
st 7 days prior to the event. If the ted event fee applies. Nibley City reserves the right to prohibit an / City outdoor movie in the park.	
traffic safety provided by the Cache quired to provide additional porta- n/walk or other fitness event if it is held ity outdoor fitness event.	
City employees, otherwise renter becoming ineligible to rent facilities.	
to sign up regardless of ability. The per fee is the most appropriate fee.	
nittee at least 30 days prior to the business license. Nibley City does other than permeant structures (i.e..	
requirement, for facility use by ssociated organizations including a	
\$	30.00
\$	30.00
\$	60.00
\$	65.00
\$	75.00
\$	10.00
\$	30.00
\$	35.00
\$	40.00
\$	40.00
\$	10.00

\$	30.00
\$	30.00
\$	10.00
\$	35.00
\$	35.00
\$	45.00
\$	45.00
\$	10.00
\$	30.00
\$	30.00
\$	45.00
\$	45.00
\$	45.00
\$	10.00
\$	5.00
\$	0.25
d on an evaluation of actual and and considerations of community osts compared to registration fees to	
\$	3.00
\$	3.00
\$	3.00
\$	20.00
\$	3.00
\$	15.00
\$	40.00
\$	50.00
\$10 (Up to 6 people)	
\$4 Per Person	
\$	200.00
\$	200.00
\$	50.00
\$3 Per Participant	

\$	30.00
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Solid Waste		
Item	New Rate	Old Rate
60 Gallon can	\$ 14.15	\$ 13.15
60 Gallon Extra Empty	\$ 14.15	\$ 13.15
90 Gallon Can	\$ 16.40	\$ 15.40
90 Gallon Extra Empty	\$ 16.40	\$ 15.40
New Homes (Resident Picked Up A/C)	\$ 6.00	
New Homes (Logan City Delivered A/C)	\$ 27.00	
Recycle Container	\$ 3.25	
Green Waste Container	\$ 5.25	

Bulk Waste Collection		
Vacancy Status	\$5	3 Month Minimum

Bin Size	1	2	3	4	5	6
2	58.11	\$ 115.23	\$ 173.83	\$ 228.45	\$ 286.57	\$ 343.68
3	74.71	\$ 148.42	\$ 222.13	\$ 294.84	\$ 369.55	\$ 443.26
4	99.28	\$ 197.56	\$ 297.34	\$ 393.12	\$ 492.40	\$ 590.68
6	145.82	\$ 290.64	\$ 434.46	\$ 579.28	\$ 725.10	\$ 869.92
8	194.09	387.19	580.28	\$ 772.37	\$ 966.47	\$ 1,159.56
Communication Center						
911 Communication Fee *	\$ 3.00					

Miscellaneous Nibley City Fees

Item	Rate
Copy	\$ 0.25
Fax - Residents	\$ 0.50 Per Page
Fax - Non-Residents	\$ 1.00 Per Page
Notary - Residents Only	FREE
CC Payment Over the Phone (Waive one time if they sign up for auto pay)	\$ 4.00
GRAMA Request	Actual Cost
Accounts Receivable Late Fee	\$ 5.00
Accounts Receivable Late Fee Penalty	0.015/month

Water Share