



NIBLEY CITY  
CITY COUNCIL MEETING AGENDA  
Thursday, November 19, 2015  
6:30 p.m.

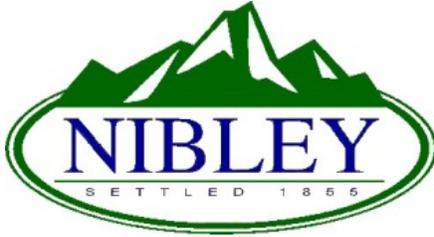
Nibley City Hall  
455 West 3200 South  
Nibley, Utah 84321

**Opening Ceremonies**  
**Call to Order**  
**Roll Call**

1. Approval of Minutes and Agenda
2. Park Committee Presentation Regarding Heritage Park West Expansion
3. Discussion and Consideration of Ordinance 15-09: AN ORDINANCE ESTABLISHING TEMPORARY LAND USE REGULATIONS PROHIBITING THE RECEIPT, PROCESSING AND APPROVAL OF ALL APPLICATIONS FOR ZONING, RE-ZONING, SUBDIVISION APPROVALS, AND ANNEXATIONS IN NIBLEY CITY.
4. Presentation, Discussion and Consideration of the Nibley City Stormwater Master Plan
5. Presentation and Adoption of the Canvas of the 2015 General Election
6. Discussion of potential rules for public comment period at the beginning of Council meetings.
7. Council and Staff Reports

**Adjourn Meeting**

*IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, REASONABLE ACCOMMODATIONS FOR INDIVIDUALS WITH DISABILITIES WILL BE PROVIDED UPON REQUEST. FOR ASSISTANCE, PLEASE CALL 752-0431 A MINIMUM OF 24 HOURS BEFORE THE MEETING.*



## Nibley City Council Agenda Report November 19, 2015

### Agenda Item #2

<b>Description</b>	Park Committee Presentation Regarding Heritage Park West Expansion
<b>Department</b>	City Council, Parks, Planning
<b>Presenter</b>	Councilmember Ron Hellstern
<b>Sponsor</b>	n/a
<b>Applicant</b>	n/a
<b>Background</b>	<p>An ad-hoc committee was formed to explore preliminary ideas regarding the development the Virgil Gibbons Heritage Park expansion. On March 19, 2015, the City Council authorized the purchase of 20 acres of property west of Virgil Gibbons Park. The purchase was made as part of a land and grant funds swap with Cache County. As part of that land swap, the City entered into an agreement with the County on December 4, 2014, which required the City to adopt a concept design for the park. That concept was referred to at the time as the Nibley SunriseNatural_Passiveconcept.</p> <p>In anticipation of the an update to the Nibley City Parks Master Plan, which is budgeted for this fiscal year, and in anticipation of preliminary development of the park, an ad-hoc committee was formed to discuss potential ideas for development of the park, within the parameters of the interlocal agreement with the County and the federal funds being used for the purchase and development of the park.</p> <p>The property was purchased for\$440,000. Pursuant to the city’s agreement with the County, the County will reimburse these funds to the City after the County’s North Logan park property is sold. This is expected to occur within the next few years.</p> <p>In addition to that reimbursement, the County has agreed to reimburse the City for 50% of the cost to develop the park. The County will use RAPZ funds to reimburse the city. It is estimated that the County will contribute more than \$600,000 in RAPZ funds to the City to assist with the development costs. The City must match those funds dollar for dollar.</p> <p>The Parks Department and the Planning Department have requested time to review and comment on the committee’s proposals prior to the Council making a selection.</p> <p><b>From Councilmember Hellstern:</b> Ron Hellstern was designated by the Council to Chair a committee to research scientific data about the 20-acre parcel adjoining the west side of Heritage Park. The committee was asked to design three options for future</p>

	<p>Park development and use in compliance with the funding protocols of the National Park Service grant.</p> <p>The volunteer committee consists of Hellstern (Science Educator and former NCAA &amp; HS Coach); Nate Norman (Professional Wetland Specialist); Becky Yeager (Professional Wildlife Biologist); and Rob Davis (Graphic Designer).</p> <p>The parcel has been visited several times by committee members at various times of the day. Wetland soils, flora &amp; fauna, and water sources were observed. A list of wildlife species (not all inclusive) has been collected. Some of these species were common, some were rare and declining in populations. Consultations were made with entomologists at Brigham Young University regarding the unique firefly population and its requirements to maintain sustainable numbers. Cornell University's Lab of Ornithology was also contacted regarding the list of birds which nest and feed on the property. They provided information and recommendations regarding those species.</p> <p>Three proposals for Park development will be presented by the committee. The options include A) a highly active Sports Complex with four athletic fields, a pavilion, and playgrounds; B) a Mixed-Use option which includes an athletic field, horseshoe pits, volleyball, a trail, and playground area; and C) a Nature Park with a trail, improved wetland, observation deck, educational kiosk, and shaded benches for board games/reading.</p> <p>The committee will present the pros and cons of each site option, make a recommendation, and answer questions from the City Council.</p>
<b>Recommendation</b>	Receive input from and ask questions of committee members
<b>Financial Impact</b>	See above for overall project funding. No funds have been expended on the project to date, outside of the costs for land acquisition.
<b>Reviewed By</b>	Mayor, City Manager

### Agenda Item #3

<b>Description</b>	Discussion and Consideration of Ordinance 15-09: AN ORDINANCE ESTABLISHING TEMPORARY LAND USE REGULATIONS PROHIBITING THE RECEIPT, PROCESSING AND APPROVAL OF ALL APPLICATIONS FOR ZONING, RE-ZONING, SUBDIVISION APPROVALS, AND ANNEXATIONS IN NIBLEY CITY
<b>Department</b>	Planning
<b>Presenter</b>	Shari Phippen, City Planner
<b>Sponsor</b>	n/a
<b>Applicant</b>	n/a
<b>Background</b>	State law grants cities the ability to enact temporary land use regulations, sometimes referred to as a moratorium, when situations arise where the City needs to put a hold on development approvals in order to gets plans and policies in place which would be impacted by, and also impact, development. With the General Plan being in process, we felt it would be an appropriate time to enact a temporary land use regulation. This will

	<p>give the City the opportunity to lay out the vision for the City and not have to worry about trying to establish a new framework for development at the same time as applications are being received based on a previous framework.</p> <p>The ordinance has been reviewed and approved by our City attorney. One thing to note about the ordinance- State law requires that the City Council determine there is a compelling, countervailing public interest before enacting temporary land use regulations. I asked Bruce if there was something specific the Council needed to do in order to make that determination. His response was as follows:</p> <p><b>"There aren't any statutory directions for reaching this conclusion. The Council just finishes any discussion the members want and then in adopting the ordinance, they make the necessary finding. It makes good sense to have whatever applications that would have been filed in the next six months wait to file them and comply with any new provisions of the updated general plan."</b></p> <p>Please note that the ordinance, as written, would apply to more than just subdivision approvals. It would apply to all items listed in the title of the ordinance.</p> <p>Also, the ordinance number has been changed on this report and also on the agenda and on the ordinance. Ordinance 15-07 was previously used for the animal control ordinance and 15-08 was the ordinance regarding the sale of real property.</p>
<b>Recommendation</b>	Advance the Ordinance to Second Reading
<b>Financial Impact</b>	
<b>Reviewed By</b>	Mayor, City Manager, City Planner, City Attorney

#### Agenda Item #4

<b>Description</b>	Presentation, Discussion and Consideration of the Nibley City Stormwater Master Plan
<b>Department</b>	Public Works Department – Stormwater Division
<b>Presenter</b>	Justin Maughan, Public Works Director and Marcus Simons, City Engineer
<b>Sponsor</b>	n/a
<b>Applicant</b>	n/a
<b>Background</b>	<p><b>From Justin Maughan, Public Works Director:</b></p> <p>When the City decided to prepare the recently adopted Sewer Master Plan, it was decided to also complete a Stormwater Master Plan. The City's Engineering Firm, JUB Engineers, competitively bid for both projects and was selected to complete the studies.</p> <p>Our City Engineer has completed a Storm Water Master Plan for Nibley City.</p> <p>As part of this plan the existing system was mapped with GIS equipment,</p>

	<p>and a computer model was created to evaluate the capacity of the existing system. With the current design criteria that we use, the existing system is adequate, and there are no major deficiencies. There are a few sumps where water collects and is meant to infiltrate into the ground, that are not functioning properly. We have addressed one of those already and are currently working on a plan for one at the bottom of Schiss Court.</p> <p>In addition, the computer model was used to project what needs we may have in the future, and gives estimates of pipe sizes and costs that may be needed. One point to remember is that the majority of these costs would be placed on the developers, and not on the City.</p> <p>How to handle storm water is a relatively new concept. Prior to about twenty years ago, there were not many regulations imposed on what to do with storm water. Since then, the EPA has come out with a host of regulations and guidelines that are meant to protect the environment. The State of Utah has what is called "Primacy" and essentially acts in behalf of the EPA in Utah. So for us, the State of Utah is who we deal with when it comes to storm water and how to handle it responsibly. There is a shift going on right now within the State, and there is a lot of questions and uncertainty as to what the future holds in regards to storm water. So while this plan gives good guidelines and plans for the future, the plan is dependent on current regulations, that may or may not change in the near future.</p> <p>The focus of the shift right now is essentially how much water can run off of a site after it is developed. Current practice in Nibley is 0.1 cubic feet per second (CFS) per acre of land that is developed. Many of the surrounding communities in Cache Valley allow 0.2 CFS per acre. So we allow less than most, but as you can see from the size of the pipes, that still amounts to a lot of water that needs to be piped or conveyed somewhere. So the shift in the State is to lower that amount of water to zero, or do a bunch of engineering for each site that comes in for development and determine how much water ran off that site before it gets developed, and match it or reduce it after development. So we as Cities are looking to the State for some guidance on how to accomplish that, and so far haven't gotten a lot from them.</p> <p>I'm about to be a more involved in that process of getting guidance and perhaps helping to create it. I was recently nominated by the Cache County Storm Water Coalition to serve on the leadership board of the Utah Storm Water Coalition, and was appointed last month. It will be a three year commitment that starts in January.</p>
<b>Recommendation</b>	Receive and Adopt the Plan
<b>Financial Impact</b>	The budget for the plan was \$55,000. The City obtained a grant from the Utah Community Impact Board, which paid for half of that cost.
<b>Reviewed By</b>	Mayor, City Manager, Public Works Director, City Engineer

**Agenda Item #5**

<b>Description</b>	Presentation and Adoption of the Canvas of the 2015 General Election
<b>Department</b>	City Council/City Recorder
<b>Presenter</b>	David Zook, City Manager/City Recorder
<b>Sponsor</b>	n/a
<b>Applicant</b>	n/a
<b>Background</b>	<p>On Tuesday, November 3, 2015, the City conducted a general election to fill three City Council seats. Six candidates ran for the three seats. The City Council is required to adopt the canvas of the election to finalize the election results.</p> <p>The regular, absentee and provisional ballots received during the election have been counted and election results were reviewed by the City Recorder, poll workers, and one citizen observer. All appeared to be in order.</p> <p>The final count includes 25 absentee ballots. No additional absentee ballots were received after Election Day. The final count also includes 5 provisional ballots that were counted. Four of the original 9 provisional ballots were rejected by the County Clerk because the voters were not registered.</p>
<b>Recommendation</b>	Adopt the Canvas of the 2015 General Election
<b>Financial Impact</b>	The budget for the election is \$4,000
<b>Reviewed By</b>	City Manager/Recorder

**Agenda Item #6**

<b>Description</b>	Proposal to revise City Council meeting rules to include general Public Comment period in Council meetings
<b>Department</b>	City Council
<b>Presenter</b>	Mayor Dustin
<b>Sponsor</b>	Ron Helstern
<b>Applicant</b>	n/a
<b>Background</b>	<p>A request from the council was made to place this item on the agenda at the November 5 2015 meeting during Council Reports. After some discussion, the Mayor instructed Staff to put the item on the agenda and asked proponents to provide written proposals for modification of existing Council rules of procedure.</p> <p>Two proposal were submitted for consideration, which have been uploaded with the meeting packet.</p> <p>In early 2012, prior to Larry's retirement, the Council passed a resolution outlining Council rules of procedure, including a section on "Residents' Right to be Heard". This resolution has been uploaded as part of the meeting materials and refer you to the back page for the existing "Residents' Right to be Heard".</p> <p>Any proposal regarding regulation of public comment, both in subject and length, will need to be reviewed by the City attorney. Once a proposal has been formulated, at the Council's direction, staff will submit the proposal</p>

	for review.
<b>Recommendation</b>	Receive input from Council, select a proposal, and consider modification of Rules to include this item on future agendas
<b>Financial Impact</b>	NA
<b>Reviewed By</b>	Mayor, City Planner

ORDINANCE 15-09

AN ORDINANCE ESTABLISHING TEMPORARY LAND USE REGULATIONS PROHIBITING THE RECEIPT, PROCESSING AND APPROVAL OF ALL APPLICATIONS FOR ZONING, RE-ZONING, SUBDIVISION APPROVALS, AND ANNEXATIONS IN NIBLEY CITY.

WHEREAS, Nibley City (“City”) is a municipal corporation duly organized and existing under the laws of Utah; and

WHEREAS, the City Council finds that in conformance with Utah Code (“UC”) §10-3-717, and UC §10-3-701, the governing body of the city may exercise all administrative and legislative powers by resolution or ordinance; and

WHEREAS, the City finds that UC §10-9a-101 et. seq. and related sections provide that the City Council may enact zoning and subdivision ordinances establishing regulations for land use and development within the City; and

WHEREAS, the City finds that the management and administration of the applications for zoning, re-zoning, subdivision approval and annexation are an integral part of the function of both the Nibley City Planning Commission and Nibley City Council; and

WHEREAS, Nibley City, by virtue of having entered into a contract with Logan Simpson Design, is in the process of updating its general plan, which, upon adoption, will provide the framework for, among other things, zoning, re-zoning, subdivision and annexation in Nibley City in the future; and

WHEREAS, the City finds that the continued receipt of applications for zoning, re-zoning, subdivision of property, preliminary or final, or annexation, each as defined in the ordinances of Nibley City, or approval of such is not in the best interest of the City nor its residents and would be harmful to the public interest until the City’s updated general plan has been adopted; and

WHEREAS the City finds that a certain amount of time will be required to complete the review, design, and amendment of said general plan; and

WHEREAS the City finds that UC §10-9a-504 provides, in part, that the City Council may, without prior consideration of or recommendation from the planning commission, enact an ordinance establishing a temporary land use regulation for any part or all of the area within the municipality.

WHEREAS, Utah State Law provides as follows:

UCA 10-9a-504 Temporary Land Use Regulations.

(1) (a) The legislative body may, without prior consideration of or recommendation from the planning commission, enact an ordinance establishing a temporary land use regulation for any part or all of the area in a municipality if:

(i) the legislative body makes a finding of compelling, countervailing public interest; or

(ii) the area is unregulated.

and;

WHEREAS, the Nibley City Council finds that there is compelling, countervailing public interest to have the City's Master Plan updated and adopted prior to the receipt, processing and approval of additional applications for zoning, rezoning, subdivision approval, both preliminary and final, and/or annexations into the municipal boundaries of Nibley City, in order that such future applications will be processed in compliance with the City's updated and current General Plan.

NOW THEREFORE, BE IT ORDAINED BY THE NIBLEY CITY COUNCIL LOCATED AT NIBLEY, UTAH, THAT:

1. The Nibley City Land Use Ordinances are hereby temporarily amended to include, in all zones within the City, the imposition of immediate, temporary land use regulations which prohibit the receipt, processing and approval of applications for zoning, rezoning, subdivision approval, both preliminary and final, and/or annexation into the municipal boundaries of Nibley City.
2. These temporary land use regulations shall be effective for a period of time not exceeding six (6) months, starting on the date this Ordinance is posted as required by law.
3. These temporary land use regulations may be rescinded prior to the end of said six (6) month period, upon a finding by the Nibley City Council that it would be in the best interest of the City so to do.
4. All ordinances, resolutions and policies of the City, or parts thereof, inconsistent herewith, are hereby repealed, but only to the extent of such inconsistency and only for the period of time this Ordinance remains effective. This repealer shall not be construed as reviving any law, order, resolution or ordinance or part thereof.
5. Should any provision, clause or paragraph of this ordinance or the application thereof to any person or circumstance be declared by a court of competent jurisdiction to be invalid, in whole or in part, such invalidity shall not affect the other provisions or applications of this

ordinance or the Nibley City Municipal Code to which these amendments apply. The valid part of any provision, clause or paragraph of this ordinance shall be given independence from the invalid provisions or applications and to this end the parts, sections and subsections of this ordinance, together with the regulations contained therein, are hereby declared to be severable.

6. This ordinance shall become effective upon posting as required by law.

Passed by the Nibley City Council this \_\_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
Shaun Dustin, Mayor

\_\_\_\_\_  
David Zook, City Recorder

Posting Date:\_\_\_\_\_

## CANVAS OF NOVEMBER 3, 2015 NIBLEY CITY GENERAL ELECTION

The regular, absentee and provisional ballots received during the election have been counted and election results were reviewed by the City Recorder, poll workers, and one citizen observer. All appeared to be in order.

The final count includes 25 absentee ballots. No additional absentee ballots were received after Election Day. The final count also includes 5 provisional ballots that were counted. Four of the original 9 provisional ballots were rejected by the County Clerk because the voters were not registered.

The following are the final results of the General Election:

<u>Candidates for City Council</u>	<u>Votes</u>	<u>Percentage</u>
Larry Anhder	154	11%
<u>Larry Jacobsen</u>	<u>332</u>	<u>23%</u>
<u>Timothy Ramirez</u>	<u>244</u>	<u>17%</u>
Malia Roundy	234	16%
Allen Cook	132	9%
<u>Tom Bernhardt</u>	<u>363</u>	<u>25%</u>
<hr/> Total	<hr/> 1459	<hr/> 100%

The above report lists the official results of the Canvas of the Municipal Election held November 3, 2015 in Nibley City.

By \_\_\_\_\_  
Shaun Dustin , Mayor

By \_\_\_\_\_  
David Zook, Recorder/Election Official

By \_\_\_\_\_  
Nancee Jabbs, Election Judge

By \_\_\_\_\_  
Cheryl Bodily, Election Judge

RULES for PUBLIC COMMENT SESSION at City Council  
(1<sup>st</sup> Draft edition)  
Ron Hellstern & Tom Bernhardt

1. People wishing to speak must pre-register on a form in the City Office, or at the back table *before* 6:20pm on the day of the City Council meeting.
2. Speaker must identify themselves by name and address on the registration form and verbally prior to speaking.
3. Comments/suggestions/requests should be polite and based upon improving the City. The Mayor may dismiss speakers whose discussion items do not pertain to City issues.
4. No personal attacks-slander-libel will be permitted. The Mayor may dismiss any speaker who violates this policy.
5. Complaints about Ordinance enforcement and violations should be reported to City Staff and/or Law Enforcement.
6. Council members/Mayor/City Staff are not required to respond to any comments.
7. Noteworthy comments “might” be placed on a future City Council agenda.
8. 15-minutes total time for open-microphone for each City Council session.
9. 3-minute maximum speaking time for each person. (We could extend that if five speakers do not register).
10. Violation of any of the rules may eliminate that person from future speaking opportunities.

Points for Mayor and Council Discussion:

- A. An option might be to allow this format only on the first City Council meeting each month.
- B. Holding an open-microphone period to allow comments on any city-related subject can possibly go astray, but we then risk the complaints that the Council doesn’t want to hear from citizens.
- C. We may also wish to consider a trial run for a selected time period of so many months, but again may risk a poor reputation if we decide to cancel it for future Council meetings.
- D. It has been suggested that the Mayor welcome, acknowledge, and thank the speakers/organizations prior to their comments.
- E. Three minutes allows the speaker time to present their comments without feeling rushed.
- F. This venue allows for face-to-face discussions of different sides of an issue.
- G. Case studies show citizens want to be involved in the early stages of planning.
- H. A weakness to this is that sometimes the most vocal & intense opinions, or those with an economic stake, might be the only ones to speak. But that opportunity should still be granted.
- I. This would be a new format for gathering information from citizens and their neighborhoods.

Mayor's suggested procedure:

This item, including statement of the rules, will be posted as Item 2 on each agenda after approval of the minutes

Public Comment (3 minutes per person, 15 minute maximum, no extensions)

- 1) Public input is invited at all Nibley City Council meetings.
- 2) Verbal comments shall be limited to 5 minutes per person. At the conclusion of 5 minutes, the floor will be given to the next person requesting time per the rules
- 3) Submission of written comments prior to meeting time is encouraged.
- 4) Comments will be taken in order that they are placed on the sign in sheet at the Recorder's desk.
- 5) The sign in sheet will be made available 15 minutes prior to commencement of the meeting
- 6) If time remains after all signed in comments have been received, the microphone will be opened for additional comments until the 15 minute period has elapsed or no comments are forthcoming as determined by the presiding officer
- 7) Any public comments will be recorded in the minutes of the meeting; commenters shall provide their names for the record

RESOLUTION 12-01

A RESOLUTION ADOPTING RULES OF PROCEDURE AND ORDER FOR THE  
NIBLEY CITY COUNCIL

BE IT RESOLVED BY THE NIBLEY CITY COUNCIL THAT:

1. The attached NIBLEY CITY RULES OF PROCEDURE AND ORDER 2012 is hereby adopted as the rules governing the conduct of Nibley City Council meetings.

PASSED BY THE NIBLEY CITY COUNCIL THIS 19<sup>TH</sup> DAY OF JANUARY, 2012.



*[Handwritten Signature]*  
\_\_\_\_\_  
City Recorder

*[Handwritten Signature]*  
\_\_\_\_\_  
Gerald K. Knight, Mayor

**NIBLEY CITY**  
**RULES OF PROCEDURE and ORDER**

**2012**

Recognizing that the City Council, as a legislative body, needs a systematic way of conducting its business, these rules of procedure are to provide for the orderly conduct of City business by the City Council, with the objective of providing for full, open, and comprehensive debate of issues brought before the City Council for action in a forum open to the public, and which encourages citizens' awareness of City Council activities.

These procedures do not increase or diminish the existing powers or authority of the Mayor or City Council members, as set forth in state law or local ordinance.

**CITY COUNCIL MEETING AGENDA**

All meetings of the City Council will have a notice and agenda that complies with the Utah Open Meetings Act and Nibley City Resolution 11-12.

An item may be placed on the agenda only by the Mayor, or at the request of a majority of council members. The City Manager may recommend agenda items to the Mayor.

Agenda items (except for emergency meetings) must be submitted to the City Recorder at least the Friday before the date of the meeting.

**ROLE OF THE MAYOR AS COUNCIL CHAIR AND OTHER COUNCIL MEMBERS:**

- The Mayor shall preside at meetings of the City Council.
- The Mayor may participate in discussion of all matters.
- The Mayor shall vote as a member thereof only in case of a tie or where otherwise specifically authorized to do so by state law, and shall have no power to veto.

In addition, the Mayor, as the Chair, has the primary responsibility for ensuring that the Council's rules of procedure are followed and:

- For maintaining the dignity of Council meetings.
- Calls the meeting to order and confines the discussion to the agenda.

- Recognizes Council members for motions and statements and may allow audience and staff participation at appropriate times.
- Requires knowledge of the City's adopted rules of parliamentary procedure and how to apply it.
- Ensures that the Utah Open and Public Meetings Act is complied with.
- Knows how to courteously discourage Council members who talk too much or too often.
- Knows how to courteously ensure those who have the floor are not interrupted and to rule out of order those not following meeting procedures.
- Recognizes the Council member offering the motion, restates the motion, presents it to the Council for consideration, calls for the vote, announces the vote, and then announces the next order of business.

**CODE OF CONDUCT FOR CITY COUNCIL AND MAYOR INCLUDES:**

- Remarks should apply to the question under debate.
- Shall avoid references to personalities, and refrain from questioning motives of other members or staff personnel.
- Demonstrate courtesy and shall not disrupt proceedings.
- Shall not use their positions to secure privileges or personal gains and shall avoid situations which could cause anyone to believe that they may have brought bias or partiality to a question before the City Council.
- Shall be dedicated to the principles of representative democracy by recognizing that the chief function of local government is to serve the best interests of the public at large while respecting individual rights.
- Shall be dedicated to the effective use of the City's available resources.
- Shall refrain from any activity that would hinder their ability to be objective and impartial.
- City business shall be discussed in open, well-publicized meetings, except in rare situations in which Executive Sessions are authorized.

**ETHICS**

The mayor and council members shall comply with the Utah Municipal Officers and Employees Ethics Act as found in Utah Code 10-3-1301 et seq.

## **PARLIAMENTARY RULES:**

The following may be referred to as the City's Rules of Order and shall be the parliamentary rules for conducting the business of the City. Each Rule is followed by a recommended Procedure and Purpose to explain the Rule and guide the Mayor and Council members in its intended application.

### **RULE NO. 1: The meeting is governed by the agenda and the agenda constitutes the City Council's agreed-upon roadmap for the meeting.**

*PROCEDURE.* Each agenda item will be handled by the Mayor in the following basic format:

*First,* the Mayor should clearly announce the agenda item number and should clearly state what the agenda item subject is.

*Second,* following that agenda format, the Mayor should invite the appropriate person or persons to report on the item, including any recommendation that they might have. The appropriate person or persons may be the Mayor, a member of the City Council, a staff person, or an invited person charged with providing input on the agenda item.

*Third,* the Mayor should ask members of the City Council if they have any technical questions of clarification. At this point, members of the City Council may ask clarifying questions to the person or persons who reported on the item, and that person or persons should be given time to respond.

*Fourth,* the Mayor should invite public comments if at a formal public hearing and should open the public hearing for public input. If numerous members of the public indicate a desire to speak to the subject, the Mayor may limit the time of each public speakers. At the conclusion of the public comments, the Mayor should announce that the public hearing is closed.

*Fifth,* the Mayor should invite a motion. The Mayor should announce the name of the member of the City Council who makes the motion.

*Sixth,* the Mayor should determine if any member of the City Council wishes to second the motion. The Mayor should announce the name of the member of the City Council who seconds the motion. If there is no second then the item will be deemed concluded without decision

*Seventh,* if the motion is made and seconded, the Mayor should make sure everyone understands the motion. This is done in one of three ways: (1) The Mayor can ask the maker of the motion to repeat it. (2) The Mayor can repeat the motion. (3) The Mayor can ask the City Recorder to repeat the motion.

*Eighth*, the Mayor should now invite discussion of the motion by the City Council. If there is no desired discussion, or after the discussion has ended, the Mayor should announce that the City Council will vote on the motion. If there has been no discussion or very brief discussion, then the vote on the motion should proceed immediately and there is no need to repeat the motion. If there has been substantial discussion, then it is normally best to make sure everyone understands the motion by repeating it.

*Ninth*, the Mayor takes a vote. All votes for purposes of the meeting minutes shall be by roll call of the council.

*Tenth*, the Mayor should announce the result of the vote and should announce what action (if any) the City Council has taken.

*PURPOSE OF THE RULE:* All meetings must comply with the Utah Open and Public Meetings Act which requires that a notice and an agenda for a public meeting be prepared in advance of the meeting and that no final action be taken on any item that is not on the agenda. In addition the Act requires that the minutes of the meeting contain certain minimum information including the name of any member of the council speaking on an issue, the substance of what the member says, an accurate description of any action taken by the council and the voting record of each individual member of the council.

**RULE NO 2: Any matter that requires a City Council decision shall be brought before the Council by motion.**

*PROCEDURE.* The procedure for any motion shall be as follows: First, the Mayor should recognize the member of the City Council. Second, the member of the City Council makes a motion by preceding the member's desired approach with the words: "I move . . . ."

So, a typical motion might be: "I move that we give the City Attorney a raise in pay."

The Mayor usually initiates the motion by either (1) Inviting the members of the City Council to make a motion. "A motion at this time would be in order." (2) Suggesting a motion to the members of the City Council. "A motion would be in order that we give the City Attorney a raise in pay." (3) Making the motion. As noted, the Mayor has every right as a member of the City Council to make a motion, but should normally do so only if the Mayor wishes to make a motion on an item but is convinced that no other member of the City Council is willing to step forward to do so at a particular time. (4) Reading a motion suggested by the City Staff.

*PURPOSE OF THE RULE.* The purpose of this rule is to limit items under discussion to those and only those that the council members want to discuss; give clarity as to what is being decided; and to make sure everyone, including the person taking the minutes actually knows and can remember what the ultimate outcome of any discussion and debate is.

**RULE NO 3: One question at a time and one speaker at a time.**

*PROCEDURE:* Only one question will be discussed at a time. The question may have several motions.

There will only be one speaker at a time. Anyone who wishes to speak must raise their hand first after the current speaker finishes. The Mayor will call upon the person by name. Once a member has been recognized, he has been granted “the floor” and may begin speaking. The speaker may not be interrupted except as allowed by these rules.

If a council member wishes to ask a question during their time and retain the floor to speak after the question has been answered they may indicate so before posing the question by saying something similar to “I have additional comments and wish to retain the floor after this question has been answered.”

*PURPOSE OF THE RULE.* The purpose is to focus on only one question and to allow council members the ability to express their points of consideration without losing their train of thought and to completely finish without fear of interruption.

**RULE NO 4: The Mayor may use General Consent (also known as Unanimous Consent) with all motions except those motions where the votes are used for purposes of the meeting minutes and require a roll call of the council.**

*PROCEDURE:* When the Mayor feels the council is all in agreement, the Mayor asks if there are any objections to the motion to amend, withdraw, or any motions in Rule No. 7. The Mayor pauses and if there are no objections states that the motion is approved. If there is any objection then the motion is put to a regular vote. A council member may object simply because he or she feels it is important to have a formal vote.

*Example:* The Mayor states, “If there is no objection, we will recess for 10 minutes, [pause to see if any member objects]. There being no objection, we will recess for 10 minutes.”

If a member objects by stating, “I object” the matter is then put to a vote.

The Mayor states, “An objection being made, the question is shall we recess for 10 minutes? As many as are in favor, say Aye. Those opposed, say No. The Ayes have it and we will recess for 10 minutes.”

*PURPOSE OF THE RULE.* General consent is helpful in expediting general routine business or when the Mayor senses the council is in agreement. General consent allows flexibility of the rules while protecting the right of the majority to decide and the minority to be heard.

**RULE NO 5: There are only three basic forms of motions allowed: Initial Motions, Motions to Amend, and Substitute Motions.**

*PROCEDURE:* The initial motion. The initial motion is the one that puts forward an item for the City Council's consideration. An initial motion might be: "I move that we adopt ordinance number 10-1 as presented."

The motion to amend. If a member wants to change the initial motion that is before the City Council, they would move to amend it. A motion to amend might be: "I move that we amend the motion to adopt ordinance number 10-1 with changes in paragraph 1 as follows...." A motion to amend takes the initial motion which is before the City Council and seeks to change it in some way. The motion to amend must be germane to the initial motion. The motion to amend must not be the same as a negative vote on the initial motion.

The substitute motion. If a member wants to completely do away with the initial motion that is before the City Council, and put a new motion before the City Council, they would move a substitute motion. A substitute motion might be: "I move that we refer ordinance number 10-1 to the planning commission for its recommendation."

*PURPOSE OF THE RULE.* "Motions to amend" and "substitute motions" are often confused. But they are quite different, and their effect (if passed) is quite different. A motion to amend seeks to retain the basic motion on the floor, but modify it in some way. A substitute motion seeks to throw out the basic motion on the floor, and substitute a new and different motion for it. The decision as to whether a motion is really a "motion to amend" or a "substitute motion" is left to the Mayor. So that if a member makes what that member calls a "motion to amend", but the Mayor determines that it is really a "substitute motion", then the Mayor's designation governs.

**RULE NO 6. There can be up to three motions on the floor at the same time and no more than three. The Mayor can reject a fourth motion until the Mayor has dealt with the three that are on the floor and has resolved them.**

*PROCEDURE:* When there are two or three motions on the floor (after motions and seconds) at the same time, the vote should proceed first on the last motion that is made. So, for example, assume the first motion is a basic "motion to adopt ordinance 10-1." During the discussion of this motion, a member might make a second motion to "amend the main motion to adopt ordinance 10-1 with changes in paragraph 1 as follows...." And perhaps, during that discussion, a member makes yet a third motion as a "substitute motion that we refer the matter to the planning commission." The proper procedure would be as follows:

*First*, the Mayor would deal with the third (the last) motion on the floor, the substitute motion. After discussion and debate, a vote would be taken first on the third motion. If the substitute motion passed, it would be a substitute for the basic motion and would eliminate it. The first motion would be moot, as would the second

motion (which sought to amend the first motion), and the action on the agenda item would be completed on the passage by the City Council of the third motion (the substitute motion). No vote would be taken on the first or second motions. On the other hand, if the substitute motion (the third motion) failed then the Mayor would proceed to consideration of the second (now, the last) motion on the floor, the motion to amend.

*Second*, if the substitute motion failed, the Mayor would now deal with the second (now, the last) motion on the floor, the motion to amend. The discussion and debate would focus strictly on the amendment. If the motion to amend passed the Mayor would now move to consider the main motion (the first motion) as amended. If the motion to amend failed the Mayor would now move to consider the main motion (the first motion) in its original format, not amended.

*Third*, the Mayor would now deal with the first motion that was placed on the floor. The original motion would either be in its original format, or, if amended, would be in its amended format.

**PURPOSE OF THE RULE:** Too many motions on the same subject can cause confusion as to what the end result is and in the official record. Limiting the number of motions to no more than three at a time, allows for enough debate and parliamentary maneuvering to satisfy those who want to be clever while allowing the slow to still keep up.

**RULE NO 7: The debate can continue as long as members of the City Council wish to discuss an item, subject to the Mayor determining it is time to move on and take action by using General Consent to limit debate or by a proper motion by a council member to limit the debate. The following motions are not debatable—a motion to adjourn; a motion to recess; a motion to fix a time to adjourn; a motion to table; and a motion to limit debate.**

*PROCEDURE.* There are exceptions to the general rule of free and open debate on motions. The exceptions all apply when there is a desire of the City Council to move on. The following motions are not debatable (that is, when the following motions are made and seconded, the Mayor must immediately call for a vote of the City Council without debate on the motion):

*A motion to adjourn.* This motion, if passed, requires the City Council to immediately adjourn to its next regularly scheduled meeting. It requires a simple majority vote.

*A motion to recess.* This motion, if passed, requires the City Council to immediately take a recess. The length should be set in the motion which may be a few minutes or an hour. It requires a simple majority vote.

*A motion to fix the time to adjourn.* This motion, if passed, requires the City Council to adjourn the meeting at the specific time set in the motion. For example, the motion might be: "I move we adjourn this meeting at midnight." It requires a simple majority vote.

*A motion to table.* This motion, if passed, requires discussion of the agenda item to be halted and the agenda item to be placed on "hold". The motion can contain a specific time in which the item can come back to the City Council: "I move we table this item until our regular meeting in October." Or the motion can contain no specific time for the return of the item, in which case the matter will not be placed back on an agenda for a future city council meeting except at the order of the Mayor or the request of any two council members. A motion to table an item requires a simple majority vote.

*A motion to limit debate.* The most common form of this motion is to say: "I move the previous question" or "I move the question" or "I call the question." When a member of the City Council makes such a motion, the member is really saying: "I've had enough debate. Let's get on with the vote". When such a motion is made, the Mayor should ask for a second, stop debate, and vote on the motion to limit debate. The motion to limit debate requires a simple majority vote of the City Council.

*PURPOSE OF THE RULE.* Debate and discussion are important until they are not. When a matter is chewed on enough it should be swallowed. This rule allows the Mayor by General Consent or the majority of the council to end the debate, after a

reasonable time. It also keeps those in a minority position on an issue from filibustering until they get their way.

**RULE NO 8: Three yes votes are required to pass any item before the council with limited exceptions. The exceptions include a motion to go into close session (executive session) which requires a 2/3 vote of the members present and when the mayor is entitled to vote where specifically allowed by state law on matters that add to or diminish the mayor's powers. The Mayor is also entitled to vote when there is a tie vote of the council.**

*PROCEDURE.* If the mayor and all five members of the council are present, a vote of 3-2 passes the motion. A vote of 2-2 with one abstention means the motion fails. If one member is absent and the vote is 2-2, the mayor is entitled to vote.

*PURPOSE OF THE RULE.* Utah statutes set out both the number of the quorum and the minimum vote required on any issue. This rule is meant to clarify that when the entire council is present and voting then it is not a tie when one member abstains. If however the member is absent from the meeting for any reason and the vote is 2-2 then it may be a tie and the mayor may vote as allowed by state statute.

**RULE NO 9: A motion to reconsider any item requires a majority vote to pass, but there are special rules that apply only to the motion to reconsider. First, is timing. A motion to reconsider must be made at the meeting where the item was first voted upon or at the very next meeting of the City Council if the item is properly on the agenda. In addition, a motion to reconsider cannot be made at a special meeting of the Council unless the number of members of the council present at the special meeting equals or exceeds the number present at the meeting when the action was approved. Second, a motion to reconsider can only be made by a member who voted in the majority on the original motion.**

*PROCEDURE.* If such a member has a change of heart, he or she can make the motion to reconsider (any other member of the City Council may second the motion). If a member who voted in the minority seeks to make the motion to reconsider, it must be ruled out of order.

*PURPOSE OF THE RULE.* The purpose of this rule is finality. If a member of the minority could make a motion to reconsider, then the item could be brought back to the City Council again and again. That would defeat the purpose of finality. If the motion to reconsider passes, then the original matter is back before the City Council, and a new initial motion is then in order. The matter can be discussed and debated as if it were on the floor for the first time.

**RULE NO 10: The Mayor and council members shall adhere to the code of conduct.**

*PROCEDURE.* The Mayor, as chair of the meeting, is primarily responsible to see that debate and discussion of an agenda item focuses on the agenda item and the

policy in question, not the personalities of the members of the City Council. There are, however, exceptions that are intended to assist the Mayor in keeping order to the meeting. A speaker may be interrupted by a council member only for the following reasons and in the form set forth below:

*Privilege.* The proper interruption would be: "point of privilege." The Mayor would then ask the interrupter to "state your point." Appropriate points of privilege relate to anything that would interfere with the normal comfort or safety of the meeting or when the reputation of the council or any individual is at stake. For example, the room may be too hot or too cold, a blowing fan might interfere with a person's ability to hear, or the speaker may be misrepresenting an individual's remarks

*Order.* The proper interruption would be: "point of order." Again, the Mayor would ask the interrupter to "state your point." Appropriate points of order relate to anything that would not be considered appropriate conduct of the meeting. For example, if the Mayor moved on to a vote on a motion that permits debate without allowing that discussion or debate.

*Appeal.* If the Mayor makes a ruling that a member of the City Council disagrees with, that member may appeal the ruling of the Mayor. If the motion is seconded, and after debate, if it passes by a simple majority vote, then the ruling of the Mayor is deemed reversed.

*Call for orders of the day.* This is simply another way of saying, "Let's return to the agenda." If a member believes that the City Council has drifted from the agreed-upon agenda, such a call may be made. It does not require a vote, and when the Mayor discovers that the agenda has not been followed, the Mayor simply reminds the City Council to return to the agenda item properly before them. If the Mayor fails to do so, the Mayor's determination may be appealed.

*Withdraw a motion.* To withdraw a motion, the maker of the motion on the floor states, "I request that my motion be withdrawn." The motion to withdraw a motion requires a simple majority vote.

**PURPOSE OF THE RULE.** Debate and discussion should be focused, but free and open. In the interest of time, the Mayor may, however, limit the time allotted to speakers, including members of the City Council. A council member may continue speaking on a majority vote of the Council. The rules of order are meant to create an atmosphere where the members of the City Council and the members of the public can attend to business efficiently, fairly and with full participation. At the same time, it is up to the Mayor and the members of the City Council to maintain common courtesy and decorum. Only one person at a time will have the floor and every speaker must be recognized by the Mayor before proceeding to speak.

## **RESIDENTS' RIGHT TO BE HEARD:**

It is the Council's goal that residents of the City resolve their complaints for service or regarding employees' performance at the staff level. However, it is recognized that residents may from time to time believe it is necessary to speak to City Council on matters of concern. Accordingly, the City Council expects any person presenting to the city council to speak in a civil manner, with due respect for the decorum of the meeting, and with due respect for all persons attending.

- No member of the public shall be heard until recognized by the Mayor.
- Public comments will only be heard during the appropriate portion of the meeting unless the issue is a Public Hearing or a member of the public is asked to speak on a matter by the mayor.
- Speakers must state their name and address for the record.
- Any resident requesting to speak shall limit him or herself to matters of fact regarding the issue of concern.
- Comments should be limited to three (3) minutes unless prior approval by the Mayor.
- If a representative is elected to speak for a group, the Mayor may approve an increased time allotment.
- Personal attacks made publicly toward any person or city employee are not allowed. Speakers are encouraged to bring their complaints regarding employee performance through the supervisory chain of command or the City Manager.
- Any member of the public interrupting City Council proceedings, approaching the dais without permission, otherwise creating a disturbance, or failing to abide by these rules of procedure in addressing City Council, shall be deemed to have disrupted a public meeting and, at the direction of the Mayor, or a two thirds majority of the Council, shall be removed from Council chambers by law enforcement personnel or other agent designated by City Council or City Manager.



2200 SOUTH

800 WEST

NIBLEY TRAILS MASTER PLAN

NIBLEY TRAILS MASTER PLAN

MEADOW LANE

2350 SOUTH ST.

2400 SOUTH ST.

1000 WEST ST.

(2350 S.)

(2400 S.)

RILEY PARK AVE. (2400 S.)

PARKING  
RESTROOM

PICNIC TABLE

OPEN PASSIVE RECREATION

WETLAND

BOARDWALK

8' TRAIL

OPEN PASSIVE RECREATION

WETLAND

CONNECT TO FUTURE SIDEWALK

WETLAND

CONNECT TO EXISTING TRAIL

PARKING

8' TRAIL

OPEN PASSIVE RECREATION

WETLAND

CONNECT TO SIDEWALK

PICNIC TABLE

EXISTING TRAIL

TENNIS COURTS

EXISTING BALL FIELD

EXISTING PARKING

EXISTING TRAIL

EXISTING RECREATION FIELDS

CONNECT TO EXISTING TRAIL

EXISTING PAVILION

EXISTING PLAYGROUND

EXISTING TREES



NIBLEY PARK-PASSIVE RECREATION CONCEPT

November 5, 2014

Cache - Landmark Engineering, Inc.  
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Logan, Utah 84321  
435.713.0099 ph 435.713.0055 fax

# STORMWATER

## MASTER PLAN REPORT

September 2015



**Prepared For:**

**Nibley City Corporation**  
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Nibley, UT 84321



**Prepared by:**

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Figure 1: Existing Storm Drain System Map

Figure 2: Land Use Map

Figure 3: Storm Drain System Build-out Map

## Introduction

Nibley City hired J-U-B ENGINEERS, Inc. (J-U-B) to evaluate the capacity of the existing storm drain collection system and propose system improvements to accommodate projected growth. This master plan provides direction for the construction of system improvements to continue serving the residents of Nibley City in the future. The following tasks were completed as part of the evaluation and are further described in the master plan report.

- Mapped the existing storm drain system using Geographic Information Systems (GIS) mapping software with data that was collected by City staff.
- Created a storm drain computer model scenario to simulate the existing flows in the existing system that result from a 25 year 1 hour storm event to determine if there are any existing system deficiencies.
- Created a storm drain model scenario to simulate the projected runoff flows created under build-out conditions assuming regional detention ponds will be utilized in the system.
- Sized future pipes and regional ponds to serve the entire City at build-out.

## Conclusions and Recommendations

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

### *Conclusions*

- The existing collection system has adequate capacity for a 25 year 1 hour storm.
- Some of the existing drainage sumps are plugged and no longer function properly.
- While the ponds in the system did not overtop in the existing model during the design storm, they could overtop in a larger storm.
- City staff reported that many of the existing ponds do not drain well and residents complain that they always have water in them.
- Construction of a collection system to serve at build-out will require a large amount of piping and regional detention ponds. The estimated cost to design and construct the build-out system is \$30,307,500.

### *Recommendations*

- Monitor and repair existing sumps as needed to maintain functionality.
- Evaluate low impact design alternatives and adopt development standards to reduce runoff from new development. This may in turn reduce the future infrastructure costs.
- Follow the conceptual plan identified in this report for future system additions until low impact design alternatives can be evaluated and integrated into the city design standards and master plan.

## I. INTRODUCTION

### A. Background

The Nibley City Stormwater collection system is diverse and changing over time. As development occurs, the existing canals, ditches, and fields are being replaced with homes, businesses and roads. An understanding of the existing system and how it functions is important for future expansion, operation and maintenance.

Nibley City has grown very quickly over the last 15 years with 3.5% growth rate. The new developments are increasing the runoff from the previous undeveloped sites and are adding infrastructure to convey the stormwater away from the development. Nibley needs a plan to follow as the growth continues. The City hired J-U-B ENGINEERS, Inc. (J-U-B) to study and complete this storm drain master plan.

The City directed J-U-B to evaluate a system that would serve the entire city at build-out with regional detention ponds. The regional ponds would be mostly built in city parks and would serve multiple subdivisions/developments.

### B. Tasks

The following tasks were completed as part of this master plan and the outcomes and results are documented in this report:

- Survey and map the existing collection system. The City collected the inverts and pipe sizes.
- Complete an aerial LiDAR survey to create a topographic map.
- Evaluate the existing system to determine current capacity status.
- Identify and create a list of projects needed to serve the City at build-out assuming regional ponds will be constructed.
- Provide an overall list of conclusions and recommendations drawn from the master plan study.

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

## II. EXISTING SYSTEM EVALUATION

### A. Introduction

The evaluation of the existing storm drain collection system included mapping the system and creating a computer hydrology and hydraulic model to simulate the actual collection system and runoff conditions. The model was built using InfoSWMM Version 5.1 software created by InnoVyze. InfoSWMM is fully integrated into ArcGIS which allows for easy assimilation of other city mapping that is contained in GIS shape files. The ArcGIS software used was Version 10.2.2.

The model is used to calculate the runoff from drainage basins (subcatchments) which are delineated based on existing contours and roadways. The model routes flows from the subcatchments into the pipes and then hydraulically routes them through the piping network to either an outfall or detention or retention pond. The model allows the pipes in the system to be evaluated to assess the existing hydraulic conditions.

### B. Existing System Mapping

The existing storm drain collection system has been mapped as part of this project based on existing data. Meetings were held with City staff during the model creation to review locations of the main drainage channels and outfalls, as well as detention/retention ponds and identify how varying aspects of the storm drain system function.

An overview of the existing storm drain collection system is given in Figure 1 in Appendix A (See Appendix A for all report figures). The following items are shown in the figure:

- Storm drain pipes
- Existing detention and retention ponds
- Existing City boundary
- Aerial image of the City
- Street labels
- Drainage sumps
- Computer modeling

The computer hydraulic model was created to simulate the existing system flow conditions and to check the capacity of the system under projected future flow conditions. Unlike a sewer system that uses flow meters to calibrate the model, storm drain modeling requires the knowledge of those that operate or manage the storm drain system to provide input into areas

that flood and areas that do not. It provides a “gut check” to determine if the model is accurate or needs model input assumption adjustments.

### C. Existing System Key Modeling Methods and Assumptions

A computer model of a storm drain system is based on assumptions that characterize the area and system components. The key assumptions used in the Existing System Model are as follows:

- The SCS curve number method was used to calculate the runoff from each subcatchment. The SCS method uses curve numbers to represent the characteristics of a subcatchment. A higher curve number represents a soil and land use type that does not allow infiltration (ex. Road curve number=98); a lower curve number correlates to a soil and land use type that does allow infiltration (eg. Soil type A and Park = 59)
- A composite curve number was calculated for each subcatchment using soil data and the most current zoning map. Each soil type/land use combination was given a curve number. The percentage of that soil/land use combination compared to the total subcatchment area was calculated. The composite curve number is calculated as a weighted average of all the soil/land use type combinations within its boundaries.
- Rim elevations for manholes, catch basins and junction boxes were estimated based on the Lidar survey data which is accurate to 6 inches. The difference in elevation from rim elevations to flow lines was collected by the City by measuring each manhole, storm drain catch basin, and storm drain box.
- The design storm for the model is a 25 year 1 hour storm event and rainfall depths were taken from the NOAA Atlas 14 website.
- Existing pipe sizes were measured by the City and input into GIS before being converted to the pipe layer within the model.
- The existing scenario only modeled developed areas with infrastructure. Open fields were not modeled.
- Main drainage ways and ditches were added to the model to convey flows past HWY 89 or to another discharge location.
- Detention/retention basins were created in the model from contours to determine the amount of storage within each basin. Outlet information was added to the model based on data that was collected by the City.
- The capacities of the retention and detention ponds are based on full ponds without any freeboard.

- The existing system discharges stormwater at several locations into existing irrigation ditches and canals. These ditches and canals were **NOT** modeled to verify that they provide adequate capacity.
- Not all of the storm drain lines in the City were modeled. The pipes needed to route flows from the delineated subcatchment to the outfall, detention, or retention pond were modeled.

### D. Existing System Evaluation Conclusions

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

- The majority of the existing pipes have capacity to handle existing flows produced by a 25 year 1 hour storm event. The exception to this is a 4" pipe at the end of the cul-de-sac on 2775 W and approximately 540 W. This pipe needs to be upsized to the minimum Nibley City storm drain pipe size.
- There are several sumps through the system which often are inundated during storms.
- All of the existing detention/retention ponds (Figure 1) have adequate capacity to hold a 25 year 1 hour storm event. Table 2-1 lists each pond and information about how full each pond is during the design storm. The ponds that currently have excess capacity could support either a larger storm event or provide storage for future development.

## NIBLEY CITY STORMWATER MASTER PLAN

Table II-1: Existing Detention/Retention Pond Performance

<b>Detention/Retention Pond ID</b>	<b>At or Below Capacity</b>	<b>Max. % Full<sup>2</sup></b>	<b>Maximum Depth modeled (ft)</b>	<b>Total Pond Depth (ft)<sup>1</sup></b>	<b>Remaining Available Depth<sup>2</sup> (ft)</b>
2500S1350W (STOR-70)	Below Capacity	78.2	2.3	3.0	0.7
NIBLEYGARDENS2	Below Capacity	76.8	1.8	2.3	0.5
PARK	Below Capacity	72.6	1.0	1.3	0.3
PETERSONSTORE2	Below Capacity	70.2	2.6	3.2	0.6
NIBLEYGARDENS1	Below Capacity	68.5	5.5	6.0	0.5
CLEARCREEK1	Below Capacity	67.1	1.4	1.8	0.4
STONEBRIDGE-TEMP	Below Capacity	63.4	1.0	1.5	0.5
720W_3480S	Below Capacity	61.1	1.0	1.5	0.5
CITYOFFICEPOND	Below Capacity	56.9	1.1	2.0	0.9
FOXBOROUGHWEST	Below Capacity	55.5	3.3	4.2	0.9
SUNRISE5	Below Capacity	55.2	1.9	3.2	1.3
MEADOWVIEW2	Below Capacity	53.1	0.7	1.3	0.6
BUSSINESSPARK2	Below Capacity	50.3	1.4	2.0	0.7
WESTWOOD	Below Capacity	48.0	1.8	3.0	1.2
2100S US89 (STOR-194)	Below Capacity	47.4	1.1	2.0	0.9
2850S_450W	Below Capacity	46.2	1.6	2.0	0.4
SUNRISE2	Below Capacity	40.9	2.9	3.3	0.4
CLEARCREEK4	Below Capacity	40.0	1.4	3.0	1.6
MEADOWVIEW	Below Capacity	38.6	0.7	1.6	0.9
CLEARCREEK2	Below Capacity	37.4	3.0	3.6	0.6
1350W3200S	Below Capacity	37.1	1.3	3.0	1.7
BUSINESSPARK4	Below Capacity	36.0	1.7	3.0	1.3
BUSINESSCOMPLEX	Below Capacity	34.0	5.5	7.0	1.5
COTTAGE	Below Capacity	31.0	1.2	3.3	2.1
HERITAGESCHOOL	Below Capacity	30.7	0.5	1.5	1.0
CHURCH2600_S_2	Below Capacity	30.2	0.4	1.0	0.6
CHURCH_2840_SOUTH	Below Capacity	24.8	0.4	1.4	1.0
ANDERSONESTATES2	Below Capacity	24.2	0.7	2.6	1.9
MAVERICK	Below Capacity	24.1	1.1	2.5	1.4
PETERSONSTORE1	Below Capacity	22.2	0.3	1.0	0.7
BROOKFIELD	Below Capacity	21.4	1.0	3.7	2.7
2200SUS89 (STOR-196)	Below Capacity	21.1	0.6	2.0	1.5
FOXBOROUGH EAST	Below Capacity	19.7	2.6	4.5	1.9
ASHBERRY2	Below Capacity	19.4	0.6	2.4	1.8
ANDERSONESTATES	Below Capacity	18.5	0.5	2.3	1.8
ASHBERRY1	Below Capacity	18.4	0.7	3.2	2.5
CHURCH2600_S_1	Below Capacity	15.2	0.6	2.3	1.7
CLEARCREEK3	Below Capacity	15.2	2.1	3.7	1.6
ZOLLINGERWEST	Below Capacity	15.2	2.4	4.0	1.6
ZOLLINGEREAST	Below Capacity	11.9	2.5	4.4	1.9
CHURCHHERITAGEHILLS	Below Capacity	10.2	3.6	6.3	2.7
SUNRISE4	Below Capacity	8.7	0.4	4.0	3.6
BUSSINESSPARK1	Below Capacity	8.5	3.7	6.1	2.4
BUSSINESSPARK3	Below Capacity	6.8	1.0	4.0	3.0
VOLLEYBALLPIT	Below Capacity	6.3	0.5	2.0	1.5
SUNRISE1	Below Capacity	5.0	0.2	3.0	2.8
SUNRISE3	Below Capacity	5.0	0.2	3.0	2.8
SHADOWBROOK	Below Capacity	0.2	1.4	4.5	3.1

Notes:

1. Total depth may include the depth of the pond inlet box which may be lower than the pond invert.
2. This value does NOT include freeboard in the pond.

### III. MASTER PLAN & RELIEF ALTERNATIVES

#### A. Introduction

The master planning portion of the study involves applying future growth projections in the model, within the study area, to identify conceptual system detention ponds and pipes needed for the projected build-out flows. Build-out is defined as the future condition when all of the areas within the study area are developed to the land use densities shown in Figure 2 included in Appendix A.

#### B. Master Plan Key Modeling Methods and Assumptions

The following key assumptions were used for the build-out master plan model:

- Regional detention ponds and associated piping will be built by the City in large areas that are currently undeveloped.
- Smaller ponds will be constructed by developers for the smaller undeveloped areas as they develop. These smaller areas are typically located around areas that are already developed.
- The annual population growth rate is 3.5%, which is the same growth rate that was used in the sewer master plan and was provided by the City.
- The estimated build-out population served by the collection system is 12,570 based on the planned densities. It is estimated that the build-out population will be reached in year 2059 based on the assumed growth rate.
- The ground surface layer was created in the model using Light Detection and Ranging (LIDAR) data that was provided by Aerographics, Inc.
- The master plan study area covers the area within the study area boundary as shown in Figure 1 in Appendix A.
- Stormwater runoff from future developments will be limited to 0.1 cfs per acre based on the current Nibley City storm drain standards.

#### C. Future Build-out Model Development

A build-out system was laid out to take advantage of the natural slope of the land and low-lying areas. For example, the future storm drain trunk lines installed to serve the undeveloped areas in the south part of the City will most likely flow into the slough located west of 1500 West in order to take advantage of the natural ground slope from east to west.

A detailed land survey will be required during design of the future pipes to ensure that they can connect to the existing collection system without the use of pumps. The final decision on storm

drain service to these areas will be determined by Nibley City policy and land development activity.

#### **D. Build-out Ponds**

The ponds required to serve the City at build-out are separated into three categories:

- Temporary
- Future City
- Future Developer

The ponds that are needed to serve the City at build-out are shown in the Storm Drain System Build-out Figure 3 in (Appendix A).

##### **1. Temporary Ponds**

The City has identified a methodology for building City-owned retention ponds by requiring temporary ponds to be installed before a large regional facility can be installed. This allows time for the City to develop a plan for installing the permanent pond. For the City to build and use a regional detention facility the temporary pond would need to be constructed with the first development. As subsequent developments occur, additional or replacement temporary ponds must be constructed to serve the additional phasing of the development. As development nears completion, the City-owned pond will be constructed and the developer will provide the infrastructure to connect the entire development to the City-owned pond as the temporary ponds are eliminated.

##### **2. Future City Ponds**

There are many large undeveloped areas within the planning boundary that will develop in the future. The City council decided to model and plan a storm drain system that utilizes regional detention facilities where possible. The large undeveloped areas can utilize regional ponds through proper planning and coordination with developers. Regional ponds allow the City to create parks and more efficient ways of maintaining the property when compared to smaller, private ponds. For the City to build and use a regional detention facility the regional pond would need to be constructed with the first development and then subsequent developments could be tied into it. The pond itself could be phased by size, but would need to be installed with the first development. As more phases or subdivisions are added the pond size would be increased accordingly.

**3. Future Developer Ponds**

Smaller undeveloped pieces of land are scattered around the City between areas that are currently developed. These areas will need to have detention facilities constructed when they are developed. These will be smaller ponds because they serve smaller areas. For the build-out system, it is assumed that these ponds will be paid for and be constructed by developers. The developer detention facilities were limited to smaller undeveloped parcels where tying into a larger City owned regional ponds was not feasible.

**E. Build-out Pipes**

Large pipes will be needed to transport flows between the future City ponds and on to the natural drainage ways (Figure 3). Most of these pipes will run from the east to the west as most of the natural drainages are on the west side of the study area.

**F. Build-out Projects**

The future City ponds and the pipes needed to connect the ponds and convey runoff water to the natural drainage ways are split into numbered projects (Figure 3). These projects are also listed in Table 3-1 with a description and the associated opinions of probable cost.

## NIBLEY CITY STORMWATER MASTER PLAN

Table III-1: Proposed Build-out Projects

### BUILD-OUT: PROPOSED FUTURE PROJECTS

Project #	PROJECT DESCRIPTION	OPINION OF PROBABLE COST
1	Regional Basin and Piping (2600 South 1350 West)	\$ 2,773,300
2	3200 S Nibley City office basin expansion for future development	\$ 2,700
3	3200 S Connect developer piping to slough (3200 S/1600 West to Slough)	\$ 705,900
4	Regional Basin and Piping (2800 S US-89)	\$ 480,600
5	Main Street Piping (Main Street/4000 South to 3200 South)	\$ 2,061,800
6	Regional Basin and Piping (2700 South 90 West)	\$ 213,600
7	Regional Basin and Piping (2900 South 550 West)	\$ 89,700
8	Regional Basin and Piping (3000 South 400 West)	\$ 78,400
9	Regional Basin and Piping (3000 South 900 West)	\$ 115,400
10	Regional Basin and Piping (3000 South 1100 West)	\$ 67,200
11	Regional Basin and Piping (3000 South 1300 West)	\$ 215,300
12	Future Development Piping (3200 South 1275 West)	\$ 361,400
13	Regional Basin and Piping (2800 South 1600 West)	\$ 521,000
14	Regional basin and Piping (2500 South 1350 West)	\$ 445,500
15	Regional Basin and Piping (2500 South US-89)	\$ 180,400
16	Regional Basin and Piping (2250 South 1300 West)	\$ 194,300
17	Regional Basin and Piping (2200 South US-89)	\$ 986,500
18	Regional Basin and Piping (2100 South 800 West)	\$ 474,900
19	Regional Basin and Piping (3200 South US-89)	\$ 238,500
20	Regional Basin and Piping (3200 South 1900 West)	\$ 1,263,500
21	Regional Basin and Piping (3390 South 1200 West)	\$ 138,600
22	Regional Basin and Piping (3500 South US-89)	\$ 293,100
23	Regional Basin and Piping (3300 South 1900 West)	\$ 1,135,000
24	Regional Basin and Piping (3400 South 1500 West)	\$ 430,200
25	Regional Basin and Piping (3600 South 2400 West)	\$ 385,800
26	Regional Basin and Piping (3650 South 1900 West)	\$ 1,640,000
27	Regional Basin and Piping (3600 South 1500 West)	\$ 237,100
28	Regional Basin and Piping (3500 South 1000 West)	\$ 261,900
29	Regional Basin and Piping (3650 South 640 West)	\$ 87,200
30	Regional Basin and Piping (3750 South 640 West)	\$ 939,700
31	Regional Basin and Piping (4000 South 2000 West)	\$ 1,643,300
32	Regional Basin and Piping (4000 South 1900 West)	\$ 1,271,500
33	Regional Basin and Piping (4000 South 1500 West)	\$ 429,200
34	Regional Basin and Piping (4000 South 1200 West)	\$ 459,200
35	Regional Basin and Piping (4000 South 700 West)	\$ 293,400
36	Regional Basin and Piping (4200 South 200 West)	\$ 1,662,900
37	Regional Basin and Piping (3400 South 950 West)	\$ 1,383,400
38	Regional Basin and Piping (3570 South 640 West)	\$ 3,038,700
39	Regional Basin and Piping (4000 South 475 West)	\$ 3,014,500
40	Regional Basin and Piping (2600 South 250 West)	\$ 92,900
<b>TOTAL FUTURE TRUNK LINE COSTS</b>		<b>\$ 30,307,500</b>

The estimates in table 3-1 include costs for the City to purchase and build the City owned detention facilities. The detention facilities could be combined, but the pipes between the master plan detention facilities would need to be remodeled. The developer detention facilities are not included in Table 3-1.

### **G. Low Impact Development Alternatives**

The above analysis identified the piping, detention and retention projects needed to serve the City using regional detention ponds. Several meetings were held between J-U-B and city staff members during the master plan process in order to guide the master plan. J-U-B identified the projects that would be needed to serve the city at build-out. At that time conceptual opinions of probable cost were created to construct the needed build-out projects. At the time JUB and the city met and it was determined that the city should investigate Low impact development alternatives. Because of this approach, all of the build-out projects are listed in one table

The costs are large. Because of this, the City should investigate low impact development alternatives in place of constructing the regional pond system. In some areas the City may need to install pipes and ponds. However, the City should investigate the following LID options to determine which options work best for the conditions in Nibley City.

- Sampling of LID Options
  - Drainage/retention swells in park strips
  - Change the onsite runoff allowance from 0.1 cfs per acre to no allowed runoff.
  - Maintainable Sumps
  - On site retention ponds
  - Medians in roads with swells
  - Permeable pavements
  - Underground park strip detention storage
- Bio-retention
- Road design

### **H. Stormwater MS4 Regulations**

Nibley is a Municipal Separate Stormwater Sewer System (MS4) community which required to meet the requirements under the phase stormwater permit. The MS4 permit states:

“All Permittees shall develop, implement and enforce a program...for the hydrology associated with new development to mirror the pre-development hydrology of the previously undeveloped site...”

This means that as new development occurs the runoff from new development must match the pre-existing runoff peak flow rate and total volume. This typically would require a pond that not only provides detention to decrease the post development peak flow rate to match the pre-developed peak runoff flowrate, but also a certain amount of retention to decrease the post development total runoff volume to the predevelopment total runoff volume.

#### **IV. CONCLUSIONS & RECOMMENDATIONS**

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

##### **A. Conclusions**

- The existing collection system has adequate capacity to convey flows from a 25 year 1 hour storm event without significant flooding.
- A large amount of regional piping will be needed to utilize the regional pond alternative.
- The land for regional detention ponds will need to be purchased before development to secure storage locations.

##### **B. Recommendations**

- Investigate low impact development (LID) options and identify LID practices to minimize or eliminate runoff from future developments.
- Change the current City development standards to implement approved LID practices.
- Where LID strategies will not work, follow the recommended collection system.
- Update the stormwater master plan to incorporate the approved LID practices.
- Develop an Impact Fee Facilities Plan (IFFP) to adjust stormwater fees to finance the needed improvements.
- Develop design standards to guide developers to meet the city’s MS4 permit requirements to match pre-existing runoff conditions.

# Appendix A

# Storm Drain System Existing

**Ponds**

- City
- Private
- ◆ Sump

— 4 Inch Line

— 6 Inch Line

— 8 Inch Line

— 10 Inch Line

— 12 Inch Line

— 14 Inch Line

— 15 Inch Line

— 16 Inch Line

— 18 Inch Line

— 21 Inch Line

— 24 Inch Line

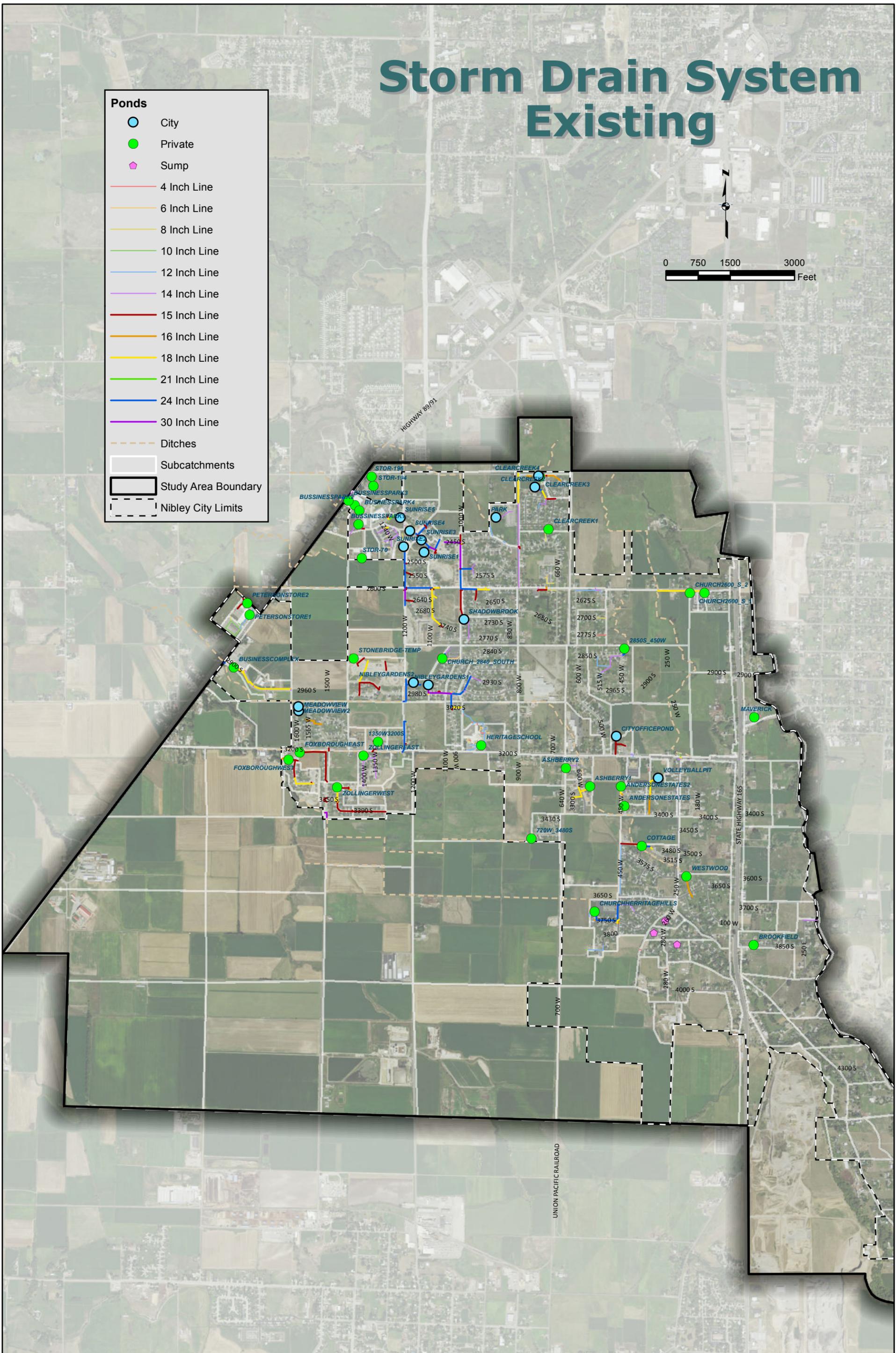
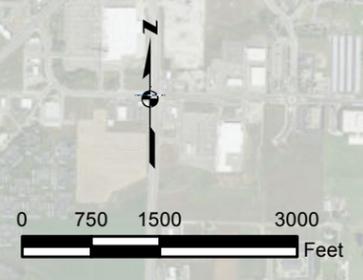
— 30 Inch Line

- - - Ditches

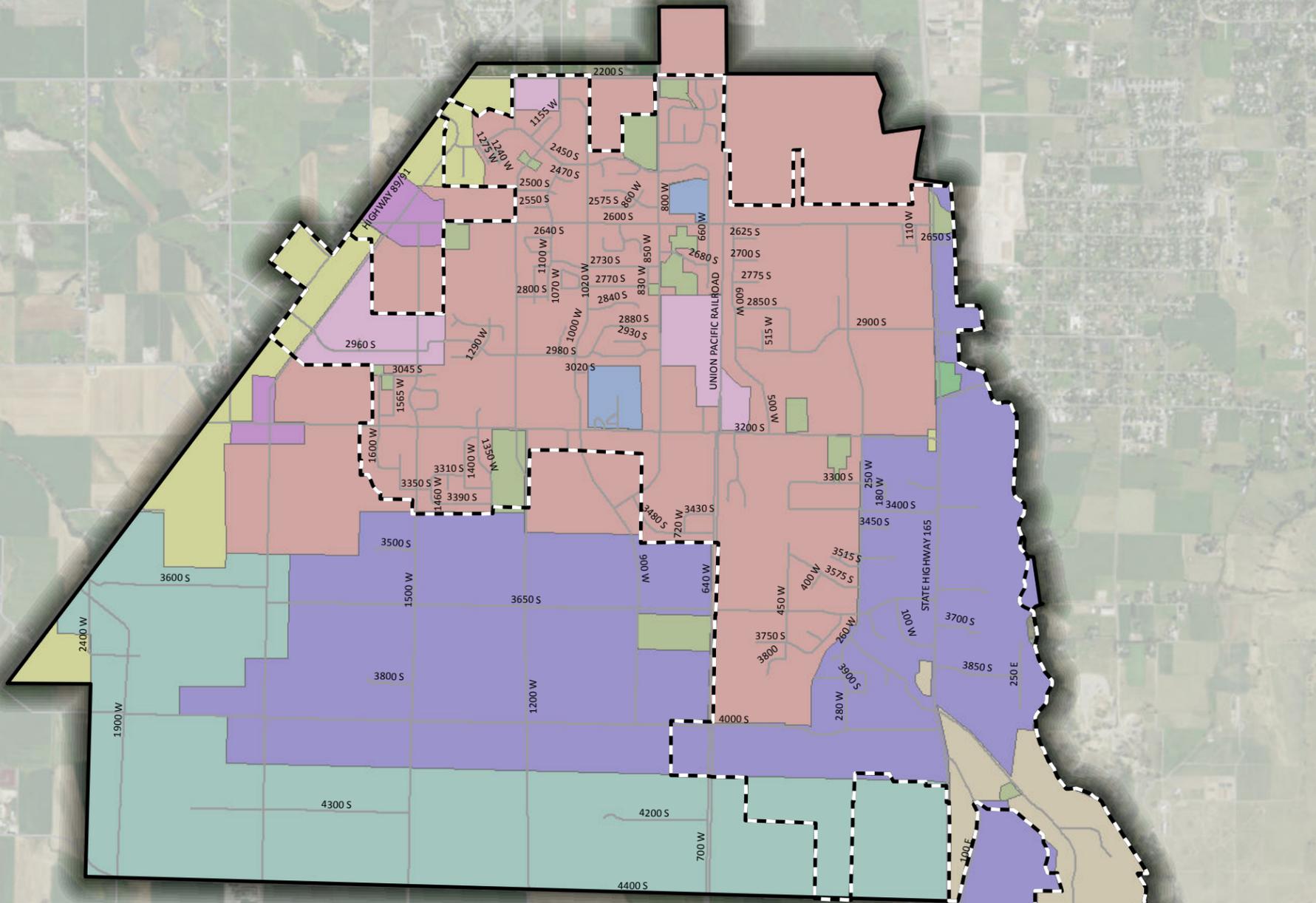
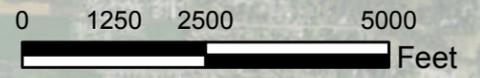
▭ Subcatchments

▭ Study Area Boundary

- - - Nibley City Limits



# Land Use



**Future Land Use**

- Agriculture Preservation
- Commercial
- Industrial
- Institutional and Public Lands
- Low Density Residential
- Medium Density Residential
- Neighborhood Center - Mixed Use
- Neighborhood Commercial
- Park and Open Space
- Rural Residential

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- Nibley City Limits
- Study Boundary
- Nibley Streets

# Storm Drain System Buildout

