



Nibley City
Planning Commission Meeting
Thursday, November 7, 2019
455 W. 3200 S.
Nibley, UT

6:00 p.m. Call to Order and Roll Call
 Approval of Agenda
 Approval of Minutes

1. Workshop: Rural Preservation Subdivision and Open Space in Nibley City
2. Workshop: Dark Sky Ordinance
3. Workshop: Future of Commercial and Neighborhood Commercial Zoning within Nibley City
4. Staff Report and Action Items

*Planning Commission agenda items may be tabled if 1) Additional information is needed in order to take action on the item, OR 2) The Planning Commission feels there are unresolved issues that may need further attention before the Commission is ready to make a motion. **No agenda item will begin after 10:00 p.m. without a unanimous vote of the Commission.** The Commission may carry over agenda items, scheduled late in the evening and not heard, to the next regularly scheduled 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 Planning Commission
Agenda Report for
Nov 7, 2019**

Agenda Item #1

Description	Workshop: Rural Preservation Subdivision/Open Space Subdivision
Department	Planning
Presenter	Stephen Nelson, City Planner
Action Type	Workshop
Findings	N/A
Recommendation	Review concepts and make general recommendations
Reviewed By	City Planner

Background

At the last meeting, the Planning Commission discussed items from the tour held on September 19, 2019. At the end of the discussion, the Planning Commission wanted to consider three issues

1. A new name for a subdivision
2. How to control the development of open space
3. Buffering along collector and arterial roadways

A New Name

Many of the past comments were directed at changing the name of the subdivision from Rural Preservation to Open Space Subdivision. However, the name of the subdivision ordinance should reflect the overall goals of the development and community produced under the code. Staff would recommend that the Planning Commission come up with the new regulations and then consider a new name.

How to Control Open Space

There are a few ways the City could control the development of open space; each has pros and cons. Below are the three main ways.

- The code could require the City own all open space
 - This would allow the City to decide how the property would be used for open space.
 - The City would be more limited on what improvements it could require. The law looks at the City owning the property as an exaction, which means property owners are protected from developing beyond their impact. This could mean we could require a more substantial part to be dedicated to the City, but we might not be able to require full development of the parcel. The City could then trade for a smaller, but fully developed plot. It would be all about the impact of the development.
 - The City could still allow the creation of farmland, but the City would be overall responsible for the maintenance of the property, but likely, the City would lease the property for agricultural use.
- Administrative Requirements
 - The current code is set up as administrative approval. The ordinance would need to create standards that a developer would need to meet before approval.
 - The strongest reason for an administrative ordinance is to allow a more sure and straightforward approval process for a developer. If the process is too complicated or not sure if they will gain approval, a developer may hesitate to use the process at all and choose a standard subdivision.
 - The City and public have limited input in what a development looks like after the code is approved. It is nearly impossible to write code for every situation that may arise or that a developer may bring forward.
- Legislative Requirement
 - This would give the City far more discretion in how open space and a subdivision is laid out. The City would not even need to specify standards in the code but could provide general goals for a developer to fulfill. The Developer would not have the right to develop under this code; it would need to be given to the developer by the City.

- A legislative code could make developers nervous, and some might not use it unless there were proper incentives within the ordinance, typically being higher density.
- The City could also require more because the applicant would be voluntarily seeking the zoning change and would be willing to sign off on an agreement.

Buffering

Buffering along major roadways was something that was discussed during the last meeting, and the Planning Commission wanted to continue to discuss it during this meeting. Below, please see some examples of buffering that we could consider requiring.





















Agenda Item #2

Description	Workshop: Dark Sky Ordinance
Department	Planning
Presenter	Stephen Nelson, City Planner
Action Type	Workshop
Findings	N/A
Recommendation	Review concepts and make general recommendations
Reviewed By	City Planner

Background

Nibley City staff is proposing that the Planning Commission consider a recommendation to the City Council about adopting a new lighting ordinance that would address light pollution. Light pollution can be defined as the following:

The inappropriate or excessive use of artificial light...[and] can have serious environmental consequences for humans, wildlife, and our climate. Components of light pollution include:

Glare – excessive brightness that causes visual discomfort

Skyglow – brightening of the night sky over inhabited areas

Light trespass – light falling where it is not intended or needed

Clutter – bright, confusing and excessive groupings of light sources

(IDA, n.d.)

Light pollution is a significant problem across the United States and has a negative impact on humans and wildlife alike. Some of the main reasons Nibley City staff recommends consideration of the proposed ordinance is for the following:

1. Help protect the health of Nibley City Residents
2. Protect wildlife, particularly the fireflies located in firefly park and other parts of the community.
3. To help protect the rural feeling within Nibley City.
4. Set a precedent for other communities in Cache County.

5. Help light fixtures become more efficient



Firefly Park Buffer Area

Fireflies are incredibly vulnerable to light pollution. During the mating season, fireflies will use bioluminescence to attract mates. When light pollution is present, this can cause fireflies to fly towards the artificial light instead of another firefly. Because of these reasons, the proposed code would create a 500' buffer area around Firefly Park. The City is also considering offering some incentive to residents around Firefly Park to voluntarily switch out their lights for dark sky compliant lighting. The proposed ordinance would give residents within the buffer area until January 1, 2024.

More about Dark Sky Policy

Learn more about light pollution and the Dark Sky Movement at the following links:

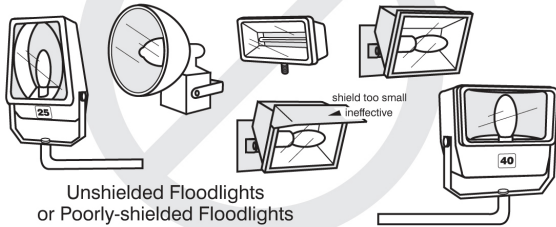
[*Why We Are Losing the Night Sky: By It's Okay to Be Smart*](#)

[The International Dark Sky Alliance](#)

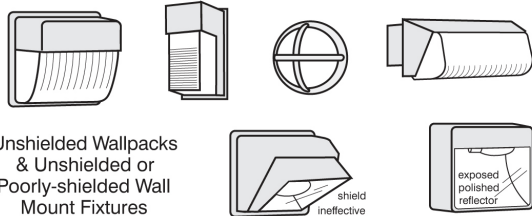
Examples of Acceptable / Unacceptable Lighting Fixtures

Unacceptable / Discouraged

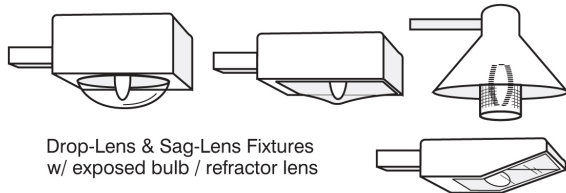
Fixtures that produce glare and light trespass



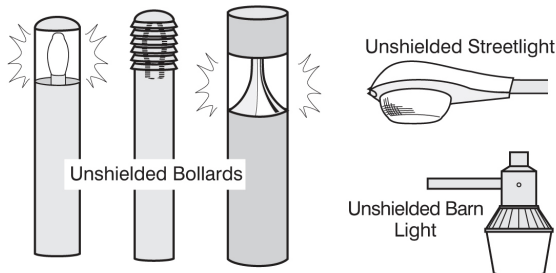
Unshielded Floodlights or Poorly-shielded Floodlights



Unshielded Wallpacks & Unshielded or Poorly-shielded Wall Mount Fixtures



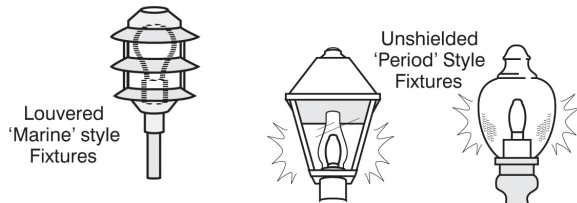
Drop-Lens & Sag-Lens Fixtures w/ exposed bulb / refractor lens



Unshielded Bollards

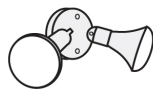
Unshielded Streetlight

Unshielded Barn Light

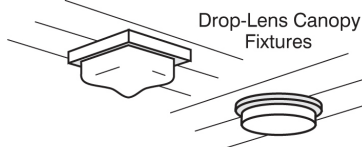


Louvered 'Marine' style Fixtures

Unshielded 'Period' Style Fixtures



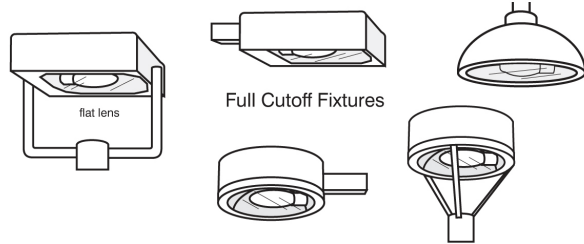
Unshielded PAR Floodlights



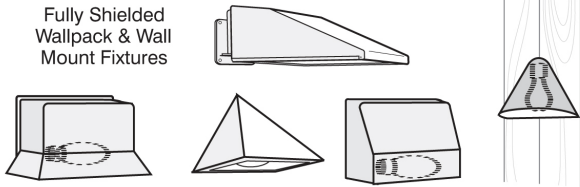
Drop-Lens Canopy Fixtures

Acceptable

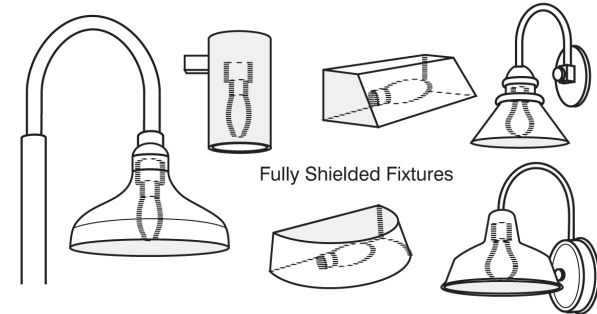
Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night



Full Cutoff Fixtures



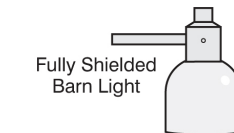
Fully Shielded Wallpack & Wall Mount Fixtures



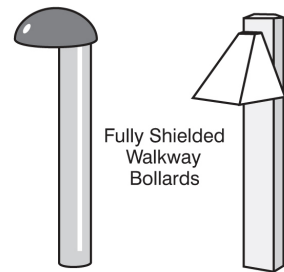
Fully Shielded Fixtures



Full Cutoff Streetlight



Fully Shielded Barn Light

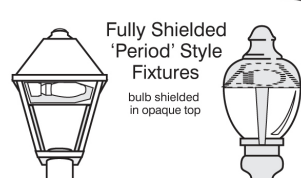


Fully Shielded Walkway Bollards



Fully Shielded Decorative Fixtures

bulb shielded in opaque top

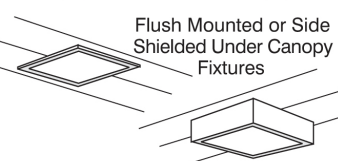


Fully Shielded 'Period' Style Fixtures

bulb shielded in opaque top



Shielded / Properly-aimed PAR Floodlights



Flush Mounted or Side Shielded Under Canopy Fixtures

Illustrations by Bob Crelin © 2005. Rendered for the Town of Southampton, NY. Used with permission.

NIBLEY CITY LIGHTING ORDINANCE (draft)

10-12-14 LIGHTING

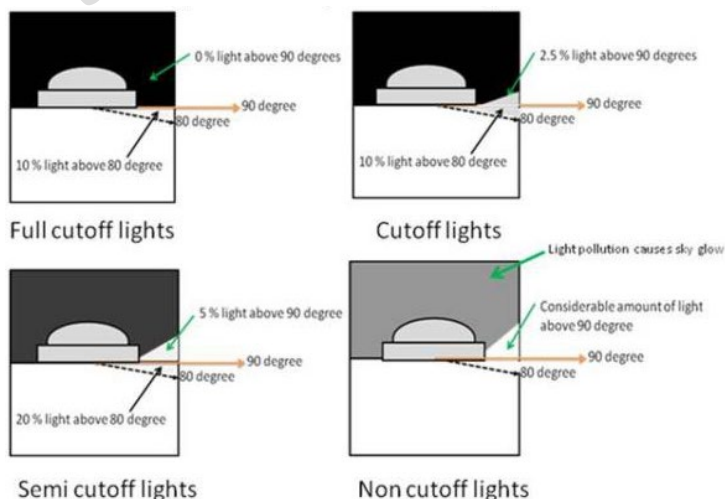
A. PURPOSE: The purposes of this chapter are to:

1. Encourage outdoor lighting practices that will minimize light pollution, glare, light trespass and sky glow in order to preserve the natural dark of the night sky and to prevent lighting nuisances on properties.
2. Promote energy conservation.
3. Maintain nighttime safety, utility and security.
4. Prevent unnecessary or inappropriate outdoor lighting.
5. Maintain the rural atmosphere and character of the city.
6. Protect the fragile ecosystem in and around Firefly Park.

B. DEFINITIONS: For the purpose of this chapter, certain words, phrases and terms used herein shall have the meanings assigned to them by this section:

1. ACCENT OR ARCHITECTURAL LIGHTING: Lighting of building surfaces, landscape features, statues and similar items for the purpose of decoration or ornamentation; or lighting that does not contribute to the safety or security of residents, guests, employees or customers on a property.
2. CORRELATED COLOR TEMPERATURE (CCT): A specification of the color appearance of the light emitted by a lamp, relating its color to the color of light from a reference source when heated to a particular temperature, measured in degrees kelvin (K).
3. DIRECT ILLUMINATION: Illumination resulting from light emitted directly from a lamp, luminary or reflector. This does not include light reflected from other surfaces, such as the ground or building faces.
4. FLOODLIGHT: A fixture or lamp designed to "flood" an area with light. A specific form of lamp or fixture designed to direct its output in a specific direction. Such lamps are often designated by the manufacturer and are commonly used in residential outdoor lighting.

5. FULL CUTOFF FIXTURE: An outdoor light fixture designed so that the installed fixture emits no light above the horizontal plane. Full cutoff light fixtures must be shielded in and of themselves. Surrounding



structures, like canopies, are not to be considered when determining if the fixture is full cutoff. Full cutoff fixtures must be appropriately mounted so that the shielding prevents light from escaping above the horizontal and all light is directed downward.

6. **INTERNALLY ILLUMINATED:** As it relates to signs, any sign which has a light source entirely enclosed within the sign and not directly visible to the eye.
7. **LIGHT POLLUTION:** Any adverse effect of manmade light. Often used to denote "sky glow" from cities, but also includes glare, light trespass, visual clutter and other adverse effects of lighting.
8. **LIGHT SOURCE:** The part of a lighting fixture that produces light, e.g., the bulb.
9. **LIGHT TRESPASS:** Light falling where it is not wanted or needed. Spill light falling over property lines that illuminates adjacent grounds or buildings in an objectionable manner.
10. **MANUFACTURER'S CATALOG CUTS:** A publication or other printed material of a lamp or lighting manufacturer offering visual and technical information about a lighting fixture or lamp.
11. **OUTDOOR LIGHT FIXTURE:** An outdoor electrically powered illuminating lamp or similar device used for lighting structures, parking lots, pathways, service canopies, recreational areas, signs or other similar outdoor lighting uses.
12. **RECREATIONAL LIGHTING:** Lighting used to illuminate sports fields, ball courts, playgrounds or similar outdoor recreational facilities.
13. **SECURITY LIGHTS:** Lighting designed to illuminate a property or grounds for the purpose of visual security.
14. **SPOTLIGHT:** A fixture or lamp designed to light a small area very brightly. See definition of Floodlight.
15. **TOWER:** Any monopole, antenna or the like that exceeds eighteen feet (18') in height.
16. **UNSHIELDED FIXTURE:** A fixture that allows light to be emitted above the horizontal either directly from the lamp or indirectly from the fixture or reflector. Any fixture not full cutoff.

C. SCOPE AND APPLICABILITY:

1. Compliance: All exterior outdoor lighting of properties within the Firefly Park 500ft buffer zone (See Annex 1) need to be in compliance before January 1, 2024. All exterior outdoor lighting installed after the effective date hereof in all zones in the city shall conform to the requirements established by this chapter. This chapter does not apply to indoor lighting. However, light trespass from interior lighting that negatively impacts adjacent properties is also prohibited.
2. Nonconforming Uses: All existing outdoor lighting that does not meet the requirements of this chapter and is not exempted by this chapter shall be considered a nonconforming use. The city will encourage property owners to voluntarily bring nonconforming exterior lighting into compliance with this chapter. Where appropriate, the city may also provide assistance and expertise to homeowners in bringing their exterior lighting fixtures into compliance with this chapter.
3. Modifications; Compliance Through Building Permit Process: The city may require exterior lighting fixtures to be brought into compliance, through the building permit process, if substantial modifications are made to the exterior of the building or if the footprint of the structure is enlarged.
4. Change Of Ownership: Properties that change ownership, whether residential or commercial, must bring exterior lighting into compliance with this chapter.
 5. Conflicts: Should this chapter be found to conflict with other ordinances of the city, the more restrictive shall apply.

D. APPLICATION AND REVIEW PROCEDURE:

1. Lighting Plans Required: All sign permit applications, building permit applications and design development review applications shall include a lighting plan that shows evidence that the proposed lighting fixtures and light sources will comply with this chapter and shall include the following:
2. Plans or drawings indicating the proposed location of lighting fixtures, height of lighting fixtures on the premises, and type of illumination devices, lamps, supports, shielding and reflectors used and installation and electrical details.
3. Illustrations, such as contained in a manufacturer's catalog cuts, of all proposed lighting fixtures. For commercial uses, photometric diagrams of proposed lighting fixtures are also required. In the event photometric diagrams are not available, the applicant must provide sufficient information regarding the light fixture, bulb wattage and shielding mechanisms for the planning commission to be able to determine compliance with the provisions of this chapter.
4. A table showing the total amount of proposed exterior lights, by fixture type, wattage, lumens, temperature (Kelvin), and lamp type.
5. Approval Procedure:
 - a. The lighting plan for all new development shall be submitted for approval concurrent with the associated application process.

- b. A certificate of occupancy shall not be issued until such time as the property is subject to a postinstallation nighttime inspection by the building inspector.

E. FULL CUTOFF FIXTURE REQUIREMENTS:

1. Required: Unless specifically exempted by this chapter, all outdoor lighting shall use full cutoff fixtures that are designed and constructed so that no light is emitted from the top or sides of the fixture. Lighting must be placed at a location, angle or height to prevent direct illumination outside the property boundaries where the light fixtures are located.
2. Characteristics: In order to qualify as a "full cutoff" fixture, a light fixture must have the top and sides made of completely opaque material such that light only escapes through the bottom of the fixture. Fixtures with translucent or transparent sides, or sides with perforations or slits, do not qualify as full cutoff. Any glass or diffuser on the bottom of the fixture must be flush with the fixture (no drop lenses). Merely placing a light fixture under an eave, canopy, patio cover or other similar cover does not qualify as full cutoff.
3. Restrictions On Total Amount Of Unshielded Lighting: Outdoor lighting that is not subject to the shielding requirement in subsection 10-12-14 C of this chapter shall not exceed five thousand (5000) lumens per net acre for commercial properties, and one thousand (1000) lumens per net acre for residential properties.
4. Exemptions To Full Cutoff Fixture Requirements:
 - a. Fixtures having a total light output less than one thousand (1000) lumens (approximately equal to a 60 watt incandescent bulb or a 15 watt compact fluorescent) are exempted from the full cutoff requirement provided:
 - b. The fixture has a top that is completely opaque such that no light is directed upward.
 - c. The fixture has sides that completely cover the light source and are made of opaque or semi opaque material. Fixtures with opaque sides may have incidental decorative perforations that emit small amounts of light. Semi opaque material, such as dark tinted glass or translucent plastic, may be used if the light source is not discernable behind the material. Completely transparent materials, such as clear glass, are not allowed.
 - d. The light source (light bulb or filament) must not be visible from any point outside the property on which the fixture is located.
 - e. Spotlights controlled by motion sensors having a light output less than one thousand (1000) lumens per lamp (allowing a maximum of a 60 watt incandescent or a 15 watt compact fluorescent bulb) are exempt from the full cutoff requirement, provided:
 - f. The fixture is a spotlight or other type of directed light that shall be directed at a forty five degree (45°) angle or less, where the zero angle is pointing straight down.
 - g. The fixture must not be placed in such a manner that results in illumination being directed outside the property boundaries where the light fixtures are located.

- h. The fixture must be hooded or shielded to the extent necessary to prevent glare on adjacent properties or roadways.
- i. Pathway lights less than eighteen inches (18") in height are exempted from the full cutoff fixture requirement, if the total light output from each pathway light is less than three hundred (300) lumens and the lights have opaque caps that direct light downward.
- j. Architectural lights, water feature illumination and sign illumination are all exempted from the full cutoff fixture requirement, provided such illumination meets all other applicable standards of this chapter.

F. CONDITIONS AND STANDARDS GENERALLY:

- 1. Minimum Necessary: Outdoor lighting should be the minimum necessary to provide for safety and functionality. The lowest wattage light source necessary for a lighting application should be used.
- 2. Maximum Color Temperature Of All Lighting Fixtures: The correlated color temperature of any outdoor lighting fixture shall not exceed three thousand degrees kelvin (3000°K).
- 3. Maximum Lighting Allowed: The total amount of outdoor lighting, whether shielded or unshielded, shall not exceed twenty five thousand (25 000) lumens per net acre for commercial properties and five thousand (5000) lumens per acre for residential properties.
- 4. Allowable Applications: Outdoor lighting shall only be allowed in the following applications:
 - a. To illuminate the entrances to buildings (including garage entrances).
 - b. To illuminate pathways and walkways.
 - c. To illuminate parking areas and parking area access lanes.
 - d. To illuminate outdoor gathering areas, such as patios, pool and hot tub areas, outdoor dining areas and recreation areas.
 - e. For security purposes, provided all the following conditions are met:
 - f. The lighting is activated by motion sensors and shuts off fifteen (15) minutes after each disturbance or when the activity involved is completed.
 - g. The lighting is placed and directed such that no direct illumination falls outside the property boundaries where the security lighting is placed.
 - h. To illuminate signage.
 - i. For architectural lighting, provided all of the following conditions are met:
 - j. The property where the architectural lighting is placed is on a property designated as commercial by the city.
 - k. The architectural lighting is compatible with the purposes of this chapter as determined by the planning commission.
 - l. All architectural lighting is mounted on and directed onto the front of a commercial building facing the street.

- m. The architectural lighting is sufficiently shielded such that the light source is not visible beyond the property boundaries.
- n. The architectural lighting is directed such that all light falls on the front of the building, and not on the adjacent ground or into the night sky.
- o. The architectural lighting uses low wattage light sources.
- p. The architectural lighting is not used to illuminate landscape, statues or other similar features.
- q. To illuminate outdoor water features, provided all of the following conditions are met:
 - i. The lighting is angled below the horizontal plane.
 - ii. The lighting is placed underneath or behind the water such that the water diffuses the light from all points where the light is visible.
 - iii. Each light source has a total light output of one thousand (1000) lumens or less and the total lighting is not greater than necessary to achieve the desired artistic effect.
- r. Light Curfews:
 - i. Commercial establishments shall turn off all outdoor lighting, except that listed below, by one hour after closing. (For the purposes of this section, motels and hotels are considered open around the clock when they are open for the season.)
 - ii. Lighting to illuminate the entrance to the commercial establishment.
 - iii. Parking lot and pathway lighting required for the safety of guests.
 - iv. Recreational lighting (residential and commercial) shall be turned off by ten o'clock (10:00) P.M., except to conclude a community approved sporting event that is underway.

G. SPECIALIZED OUTDOOR LIGHTING:

1. Gas Station Canopies: Gas station canopies may be illuminated, provided all light fixtures are mounted on the undersurface of the canopy, all light fixtures are full cutoff and diffusers are not visible from locations off the property. Except for directed beam lighting, merely placing the fixtures on the underside of the canopy does not qualify as fully shielding the light fixture. Directed beam lighting mounted under the canopy is allowed, provided the light source cannot be seen from outside the property boundaries.
2. Roadway/Streetlights: Streetlights are allowable as recommended by the city engineer or city council. All streetlights shall utilize lamp types that are energy efficient and minimize sky glow and other negative impacts of artificial lighting.
3. Parking Lots:
 - a. Spot or flood lighting of parking lots from a building or other structure is prohibited.

- b. The overall height of any light post used to illuminate parking lots in commercial zones shall not exceed fourteen feet (14'). All post mounted parking lot lights shall be set back from property lines a distance that is determined appropriate by the planning commission.
 - c. The overall height of any light post used to illuminate parking lots in residential zones shall not exceed six feet (6').
 - d. All parking lot lighting shall use full cutoff fixtures.
4. Recreational Lighting:
- a. The planning commission shall review all requests for new recreational lighting fixtures for fields or courts. The planning commission shall approve such requests only after finding:
 - b. The recreational lighting has provisions for minimizing glare, spill light and up-light using louvers, hoods or shielding.
 - c. The recreational lighting does not exceed illumination levels for class IV sports lighting set by the Illuminating Engineering Society of North America.
 - d. The recreational lighting will only illuminate the field or court area and shall be shielded to prevent illumination falling outside of those areas.
 - e. The light source for the recreational light will not be visible from adjacent properties.
 - f. Pole mounted recreational lighting shall be limited to eighteen feet (18') in height. Pole mounted recreational lighting must be set back an appropriate distance from neighboring properties as determined in consultation with the planning commission.
 - g. The lighting for non-field and non-court areas shall conform to all provisions of this chapter.
5. Amphitheater Lighting: Outdoor amphitheaters may use illumination to light the performance area of the amphitheater and for the safety of the public. The following standards apply to all amphitheater lighting:
- 6. Lighting used to illuminate the performance area must be either directed spotlighting or full cutoff lighting. If directed spotlighting, the light source must be located and designed such that it is not visible beyond the property boundaries.
 - 7. Lighting used to illuminate the performance area may only be turned on during performances or rehearsals.
 - 8. Lighting used to illuminate the seating areas, pathways and other areas of the amphitheater must meet all standards of this chapter.

9. Signs: Signs may be unlighted, lighted externally, lighted internally or backlit. All sign lighting must be designed, directed and shielded in such a manner that the light source is not visible beyond the property boundaries where the sign is located. Lighting for signs must be directed such that only the sign face is illuminated. All lighted signs must have stationary and constant lighting. (Note: For additional information on sign lighting standards, please refer to the city sign ordinance, chapter 3 of this title.)
10. Standards for Externally Illuminated Signs:
 - a. Lighting for externally illuminated signs must be aimed and shielded so that light is directed only onto the sign face and does not trespass onto adjacent streets, roads or properties or into the night sky.
 - b. Lighting for externally illuminated signs must be mounted at the top of the sign (or within 2 feet of the top of a building mounted sign), except for freestanding monument style signs which may be illuminated by ground mounted lighting.
11. Standards for Internally Illuminated Signs - Lighting Is Visible On Both Sides Of Sign:
 - a. Only sign copy areas and logos may be illuminated on an internally illuminated sign.
 - b. Internally illuminated signs shall use semi-opaque materials for sign copy such that the light emanating from the sign is diffused. Transparent or clear materials are not allowed for sign copy. Non-copy portions of the sign (e.g., background and graphics) shall be made of completely opaque material.
12. Standards for Backlit Signs - Only One Side Of Sign Is Lit:
 - a. Backlit signs shall be designed such that the light source is not visible.
 - b. Backlit signs shall be designed such that harsh, direct illumination does not emanate out of the sign. Rather, the backlighting shall only allow indirect illumination to emanate from the sign. For example, signs that create a "halo" effect around sign copy are allowed.
 - c. Backlit signs shall use low wattage light sources.
13. Illuminated Window Signage: Illuminated window signs positioned to be primarily visible outside the business structure are allowed only if there are no more than two (2) signs per business space and each sign measures less than three and one-half (3 1/2) square feet in area. Such signs must not be illuminated when the business is closed.

H. HILLSIDES, RIDGELINES AND SPECIAL CASES:

1. In certain cases (such as, but not limited to, properties on or near ridgelines or hillsides), additional shielding may be required to mitigate glare or light trespass. The need for additional shielding will be considered as part of the review process performed by the planning commission prior to approval of any business or residence.

I. TOWERS:

1. All monopole, antenna, tower or support facility lighting not required by the federal aviation administration (FAA) or the federal communications commission (FCC) is prohibited.
2. When lighting is required by the FAA or the FCC, such lighting shall not exceed the minimum requirements of those agencies. Collision markers should have a dual mode for day and night to minimize impact to the night sky and migrating birds.
3. All other lighting used on the property not regulated by the FAA or FCC shall conform to this chapter.

J. EXEMPTIONS: The Follow shall have exceptiong to this chapter

1. Holiday lighting from November 15 to January 15 providing it does not create a hazard or nuisance to surrounding businesses or residences.
2. Traffic control signals and devices.
3. Temporary emergency lighting in use by law enforcement or government agencies, or at their direction.
4. The lighting of federal or state flags; provided, that the light is a narrow beam aimed and shielded to illuminate only the flag. Flag lighting should use appropriate illumination levels to light the flag, while at the same time fulfilling the purposes of this chapter.
5. Low voltage LED lights and solar lights used to illuminate pathways in residential areas, provided the lights are installed no more than eighteen inches (18") above the adjacent ground level and have caps that direct the light downward.
6. The planning commission, as part of its review as outlined in this chapter, may approve lighting that does not conform to these standards if need is established. An applicant requesting such lighting is required to provide proof of requirements of property insurance or findings of competent research demonstrating the need for the requested lighting. The planning commission may attach other conditions to the approval of such lighting that will make the lighting comply with the spirit of this chapter.

K. PROHIBITED LIGHTING:

1. The following are prohibited:
 - a. Up-lighting to illuminate buildings and other structures, or vegetation, except as allowed by other provisions in this chapter.
 - b. Flashing, blinking, intermittent or other lights that move or give the impression of movement, not including holiday lighting between November 15 and January 15.
 - c. Floodlights or spotlights affixed to buildings for lighting parking lots or sales display lot areas.
 - d. Searchlights, laser source lights or any similar high intensity light.

- e. Except when used in window signage pursuant to subsection 9-4-7F4 of this chapter, neon or luminous tube lighting, either when outdoor mounted or indoor mounted if visible beyond the property boundaries.

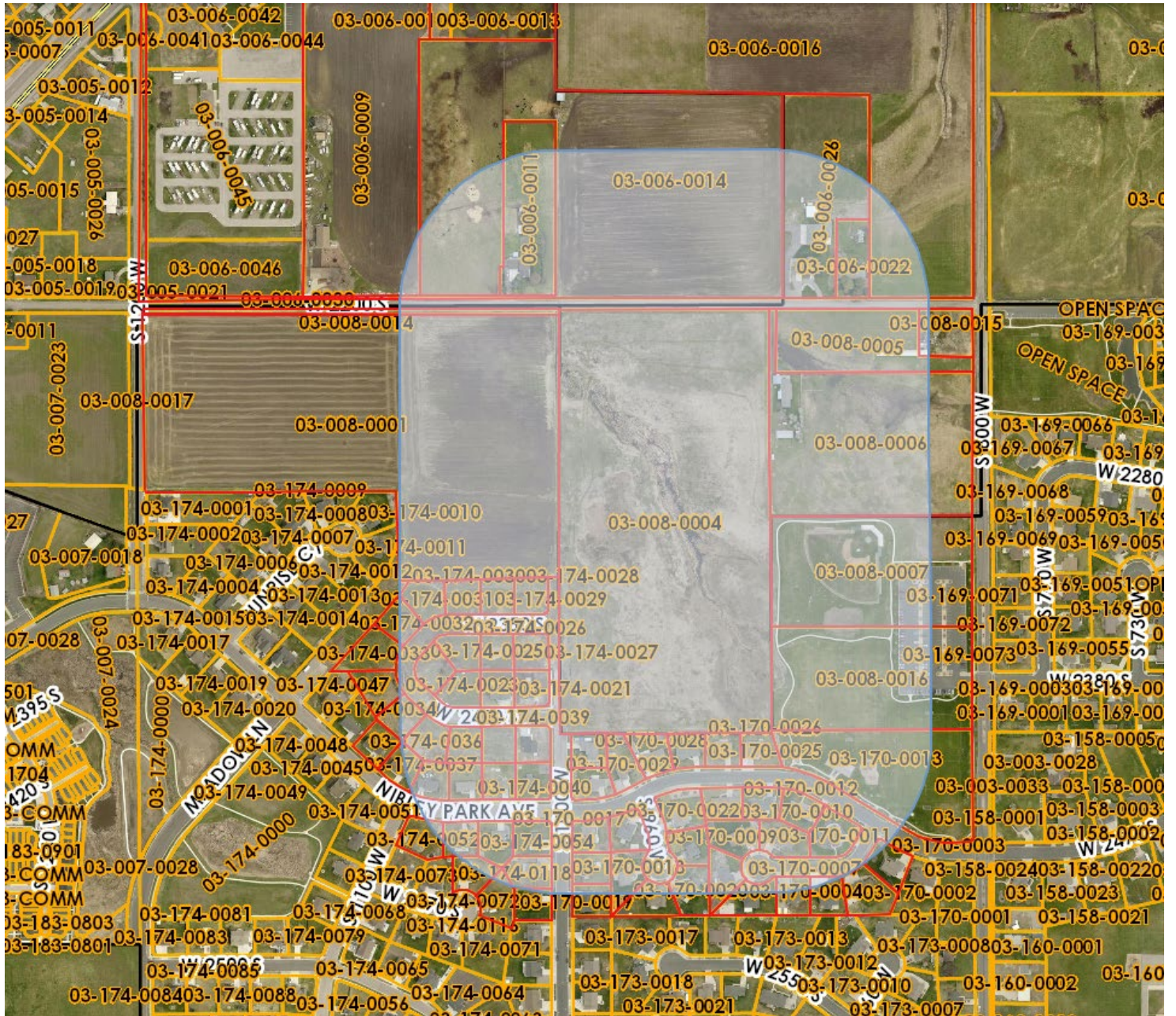
L. VIOLATIONS:

1. The following constitute violations of this chapter:
 - a. The installation, maintenance or operation of any lighting fixture not in compliance with the provisions of this chapter if such fixture is installed after this chapter is formally adopted.
 - b. The alteration of outdoor lighting fixtures after a certificate of occupancy has been issued without the review and approval of the planning commission when such alteration does not conform to the provisions of this chapter.
 - c. Failure to shield, correct or remove lighting that is installed, operated, maintained or altered in violation of this chapter.

M. PENALTIES:

1. Violations and Legal actions. If, after investigation, the planning director finds that any provision of this chapter is being violated, the planning director or designee shall give notice by hand delivery or by certified mail, return receipt requested, of such violation to the owner and/or occupant of such premises, demanding that the violation be abated within 30 days of the date of hand delivery or of the date of mailing of the notice. The planning department staff shall be available to assist in working with the violator to correct said violation. If the violation is not abated within the 30-day period, the planning director or designee may institute actions and proceedings, either legal or equitable, to enjoin, restrain or abate any violations of this chapter and to collect penalties for such violations.
2. Penalties. A violation of this chapter, or any provision thereof, shall be punishable by a civil penalty of \$75.00 per day, and each day of violation after the expiration of the 30-day period shall constitute a separate offense for the purpose of calculating the civil penalty.

1. 500 foot buffer zone around Firefly Park with accompanying mailing list for properties touched by buffer.

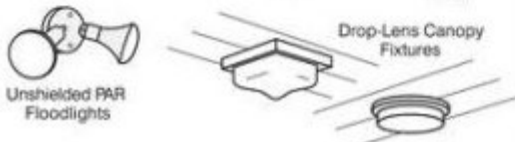
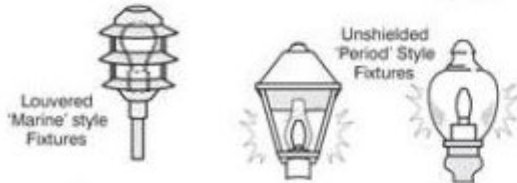
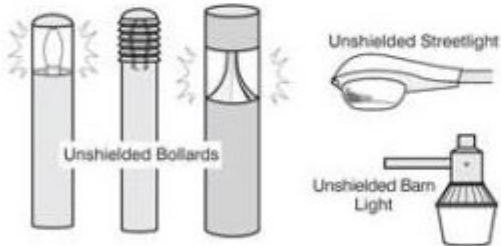
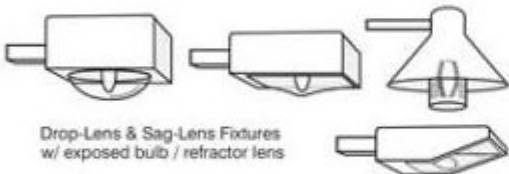
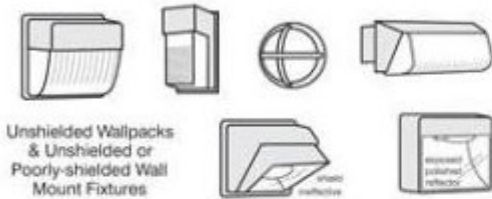


2. Illustrative examples for purposes of compliance

Examples of Acceptable / Unacceptable Lighting Fixtures

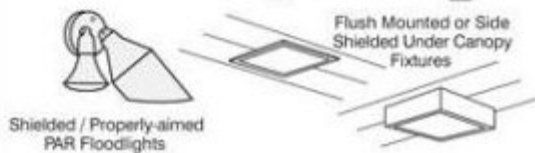
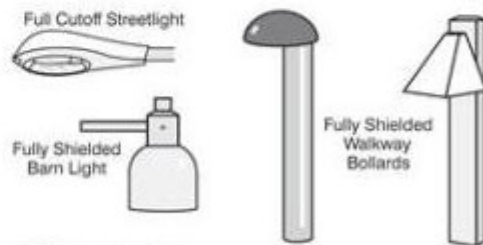
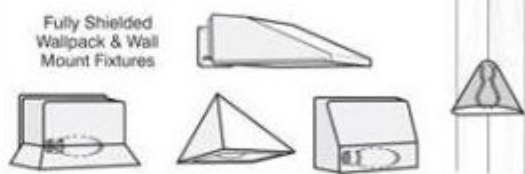
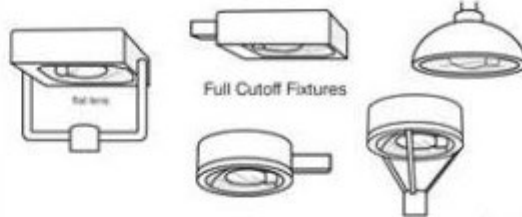
Unacceptable / Discouraged

Fixtures that produce glare and light trespass



Acceptable

Fixtures that shield the light source to minimize glare and light trespass and to facilitate better vision at night



Description	Workshop: Future of Commercial and Neighborhood Commercial Zoning within Nibley City
Department	Planning
Presenter	Stephen Nelson, City Planner
Action Type	Workshop
Findings	N/A
Recommendation	Review concepts and make general recommendations
Reviewed By	City Planner

Background

Nibley City Mayor and a couple of members of the City Council have recommended to staff that the Planning Commission review if the City review several items about our commercial zoning as follows:



- Neighborhood commercial 2-5 acres zoning requirements
- Expansion of commercial zoning along Highway 165 and 3200 S
- Commercial standards
- Town Center Commercial standards

Staff will present a few options for commercial development within Nibley City. Nibley City had a study within the last two years that showed that Nibley could support further commercial development (see attached). It is also important to note that Nibley City is currently conducting a study and an update to help evaluate what type of commercial growth Nibley City should support or even recruit into Nibley City.



Retail Leakage and Surplus Analysis

The Retail Leakage and Surplus Analysis examines the quantitative aspect of the community's retail opportunities. It is a guide to understanding retail opportunities but it is not an analysis that indicates unconditional opportunities. The analysis is sometimes called "a gap analysis" or "a supply and demand analysis" and can aid in the following:

- Indicating how well the retail needs of local residents are being met
- Uncovering unmet demand and possible opportunities
- Understanding the strengths and weaknesses of the local retail sector
- Measuring the difference between estimated and potential retail sales

Understanding Retail Leakage

Retail leakage means that residents are spending more for products than local businesses capture. Retail sales leakage suggests that there is unmet demand in the trade area and that the community can support additional store space for that type of business.

However, retail leakage does not necessarily translate into opportunity. For example, there could be a strong competitor in a neighboring community that dominates the market for that type of product or store.

Understanding Retail Surplus

A retail surplus means that the community's trade area is capturing the local market plus attracting non-local shoppers. A retail surplus does not necessarily mean that the community cannot support additional business. Many communities have developed strong clusters of stores that have broad geographic appeal. Examples of these types of retailers include: sporting goods stores, home furnishing stores, restaurants, and other specialty operations that become destination retailers and draw customers from outside the trade area.

Examining the quantitative aspects (Leakage/Surplus) is only part of the evaluation of community's retail opportunities. Before any conclusions can be drawn about potential business expansion or recruitment opportunities, qualitative considerations such as trade area psychographics and buying habits must be analyzed in context of other market factors.

Interpreting Leakage Index

1.0 = equilibrium, meaning that demand and sales in the area being analyzed are in balance.
.80 = demand exceeds sales by 20%, meaning that consumers are leaving the area being analyzed.
1.2 = sales exceed demand by 20%, meaning that consumers are coming from outside the area being analyzed.

Leakage/Surplus Index by Major Store Type

The quantitative comparison of retail leakage and surplus in the twelve major store types shown in the chart and table below provides an initial measure of market opportunities. Combining this analysis with the knowledge of the local retail situation will take the process of identifying retail possibilities one step further.

Figure 1 provides the leakage/surplus indices and following is the sales potential and estimated sales for major store types.

Figure 1. Leakage/Surplus Index and Estimated and Potential Sales by Major Store Types



Store Type	Potential	Estimated Sales	Surplus/Leakage
Motor Vehicle Parts & Dealers	18,687,277	7,353,009	0.4
Furniture & Home Furnishing Stores	1,537,164	0	0.0
Electronics & Appliance Stores	2,207,935	480,396	0.2
Building Material & Garden Equipment & Supply Dealers	3,607,027	2,254,667	0.6
Food & Beverage Stores	9,448,932	0	0.0
Health & Personal Care Stores	4,712,458	0	0.0
Clothing & Clothing Accessories Stores	3,235,747	1,123,533	0.3
Sporting Goods, Hobby, Book, & Music Stores	3,448,476	4,335,385	1.3
General Merchandise Stores	10,358,687	0	0.0
Miscellaneous Store Retailers	1,595,531	2,492,045	1.6
Foodservice & Drinking Places	6,944,819	0	0.0
Total	65,784,053	18,039,035	0.3

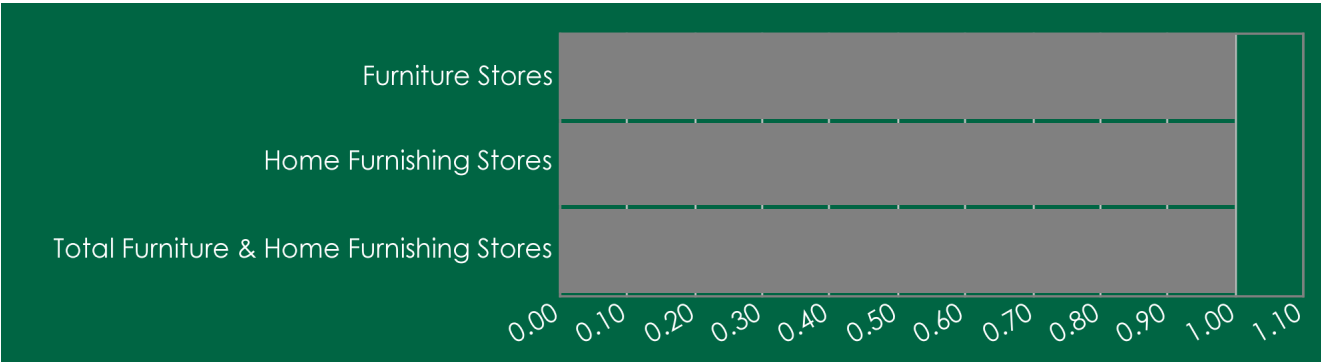
All estimates, projections or forecasts in this model are subject to errors, including statistical error, error due to the subjective nature of some data, error due to changes in demographics, error based on lagging competitor information or growth data, and error due to factors that are not included in the model. The user assumes all risk of reliance on this information.

Sub-Categories of Motor Vehicle Parts & Dealers



Store Type	Potential	Estimated Sales	Surplus/Leakage
Automotive Dealers	14,540,966	0	0.0
Other Motor Vehicle Dealers	2,755,546	7,353,009	2.7
Automotive Parts, Accessories, & Tire Stores	1,390,765	0	0.0
Total Motor Vehicle Parts & Dealers	18,687,277	7,353,009	0.4

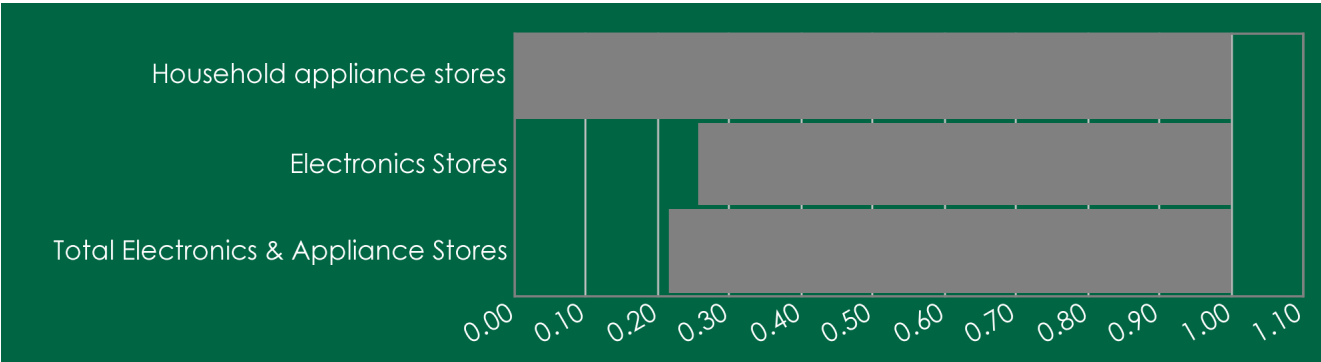
Sub-Categories of Furniture & Home Furnishing Stores



Store Type	Potential	Estimated Sales	Surplus/Leakage
Furniture Stores	902,917	0	0.0
Home Furnishing Stores	634,247	0	0.0
Total Furniture & Home Furnishing Stores	1,537,164	0	0.0

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Sub-Categories of Electronics & Appliance Stores



Store Type	Potential	Estimated Sales	Surplus/Leakage
Household appliance stores	353,347	0	0.0
Electronics Stores	1,854,588	480,396	0.3
Total Electronics & Appliance Stores	2,207,935	480,396	0.2

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Sub-Categories of Building Material & Garden Equipment & Supply Dealers



Store Type	Potential	Estimated Sales	Surplus/Leakage
Home Centers	1,833,539	0	0.0
Paint and Wallpaper Stores	79,106	0	0.0
Hardware Stores	320,627	51,231	0.2
Other Building Material Dealers	778,013	1,299,252	1.7
Outdoor Power Equipment Stores	95,905	192,843	2.0
Nursery, garden center, & farm supply stores	499,837	711,341	1.4
Total Building Material & Garden Equipment & Supply Dealers	3,607,027	2,254,667	0.6

Sub-Categories of Food & Beverage Stores



Store Type	Potential	Estimated Sales	Surplus/Leakage
Supermarkets and Other Grocery (except Convenience) Stores	8,132,013	0	0.0
Convenience Stores	315,724	0	0.0
Specialty Food Stores	332,283	0	0.0
Beer, Wine, & Liquor Stores	668,912	0	0.0
Total Food & Beverage Stores	9,448,932	0	0.0

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Sub-Categories of Health & Personal Care Stores

Store Type	Potential	Estimated Sales	Surplus/Leakage
Pharmacies and Drug Stores	3,907,413	0	0.0
Cosmetics, Beauty Supplies and Perfume Stores	290,140	0	0.0
Optical Goods Stores	195,183	0	0.0
Other Health and Personal Care Stores	319,722	0	0.0
Total Health & Personal Care Stores	4,712,458	0	0.0

Sub-Categories of Clothing & Clothing Accessories Stores



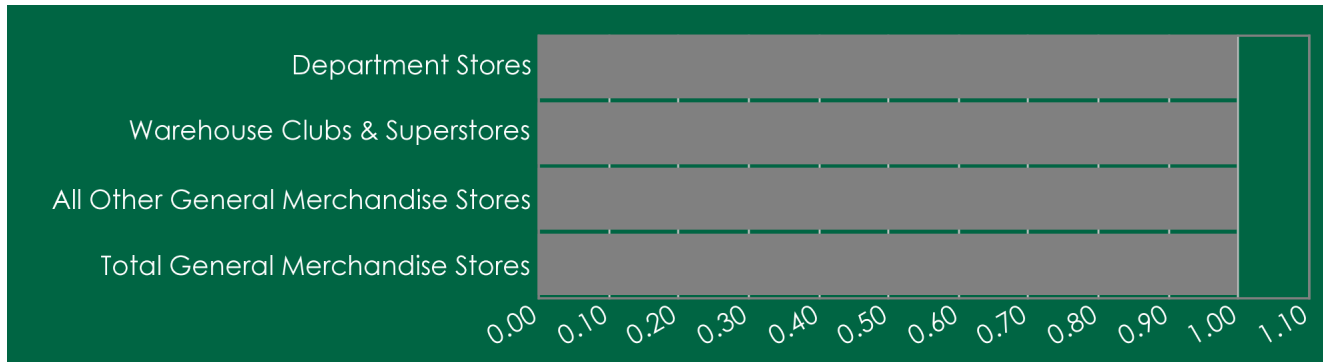
Store Type	Potential	Estimated Sales	Surplus/Leakage
Mens Clothing Stores	126,202	182,040	1.4
Womens Clothing Stores	486,783	0	0.0
Childrens and Infants Clothing Stores	181,512	941,493	5.2
Family Clothing Stores	1,309,863	0	0.0
Clothing Accessories Stores	103,271	0	0.0
Other Clothing Stores	150,651	0	0.0
Shoe Stores	541,959	0	0.0
Jewelry Stores	292,558	0	0.0
Luggage & Leather Goods Stores	42,948	0	0.0
Total Clothing & Clothing Accessories Stores	3,235,747	1,123,533	0.3

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Sub-Categories of Sporting Goods, Hobby, Book, & Music Stores

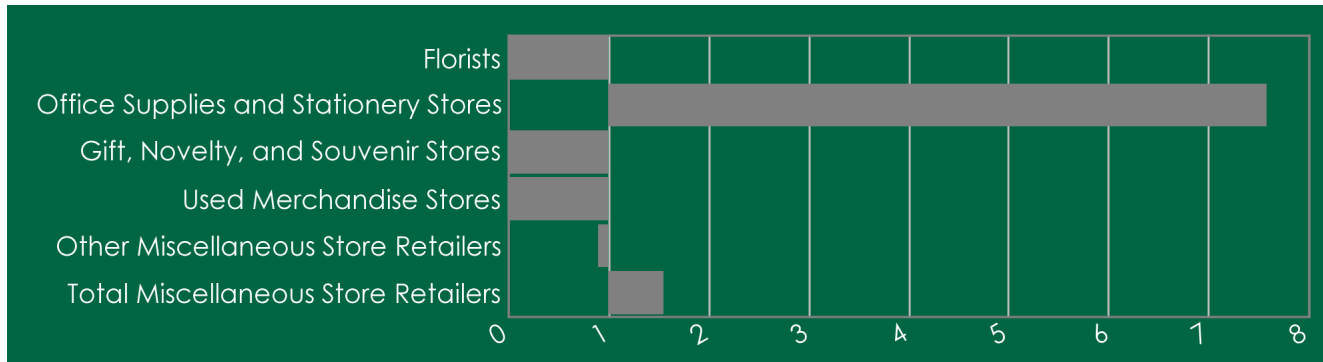


Store Type	Potential	Estimated Sales	Surplus/Leakage
Sporting Goods Stores	2,784,235	4,335,385	1.6
Hobby, Toy, and Game Stores	334,953	0	0.0
Sewing, Needlework, and Piece Goods Stores	40,227	0	0.0
Musical Instrument and Supplies Stores	64,349	0	0.0
Book Stores	171,576	0	0.0
News Dealers and Newsstands	53,136	0	0.0
Total Sporting Goods, Hobby, Book, & Music Stores	3,448,476	4,335,385	1.3

Sub-Categories of General Merchandise Stores

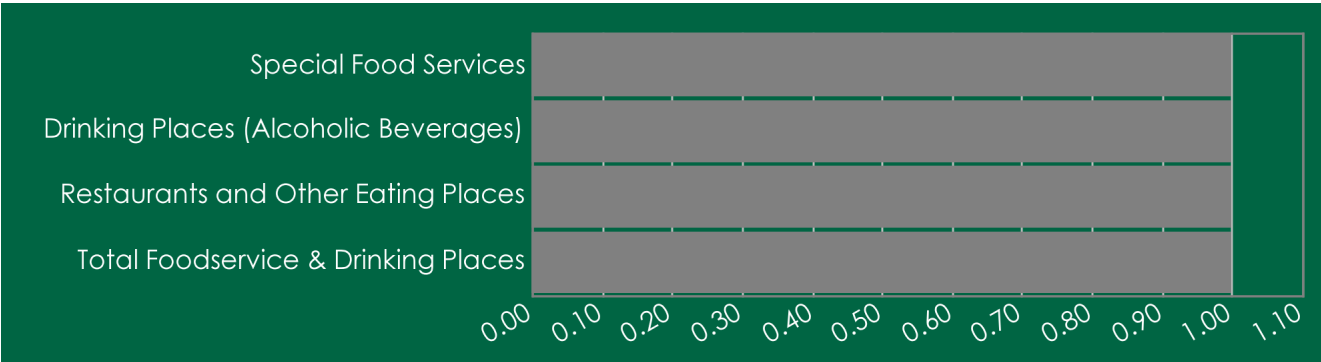
Store Type	Potential	Estimated Sales	Surplus/Leakage
Department Stores	2,590,438	0	0.0
Warehouse Clubs & Superstores	6,763,941	0	0.0
All Other General Merchandise Stores	1,004,308	0	0.0
Total General Merchandise Stores	10,358,687	0	0.0

Sub-Categories of Miscellaneous Store Retailers



Store Type	Potential	Estimated Sales	Surplus/Leakage
Florists	74,829	0	0.0
Office Supplies and Stationery Stores	243,804	1,849,463	7.6
Gift, Novelty, and Souvenir Stores	287,796	0	0.0
Used Merchandise Stores	276,723	0	0.0
Other Miscellaneous Store Retailers	712,379	642,582	0.9
Total Miscellaneous Store Retailers	1,595,531	2,492,045	1.6

Sub-Categories of Foodservice & Drinking Places



Store Type	Potential	Estimated Sales	Surplus/Leakage
Special Food Services	789,244	0	0.0
Drinking Places (Alcoholic Beverages)	321,774	0	0.0
Restaurants and Other Eating Places	5,833,801	0	0.0
Total Foodservice & Drinking Places	6,944,819	0	0.0

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Sources and Methodology

The primary data sources used in the construction of the database include:

- Current Year CAPE (Census Area Projections & Estimates) Consumer Expenditure Estimates
- Census of Retail Trade, Merchandise Line Sales
- Census Bureau Monthly Retail Trade

The Census of Retail Trade presents a table known as the Merchandise Line summary, which relates approximately 120 merchandise lines (e.g. hardware) to each of the store types. For each merchandise line, the distribution of sales by store type can be computed, yielding a conversion table which apportions merchandise line sales by store type.

The CAPE (Census Area Projections & Estimates) Consumer Expenditure database was re-computed to these merchandise lines by aggregating both whole and partial categories, yielding, at the block group level, a series of merchandise line estimates which are consistent with the CAPE Consumer Expenditure database.

These two components were then combined in order to derive estimated potential by store type. The results were then compared to current retail trade statistics to ensure consistency and completeness.



MEMORANDUM

To: Nibley City
From: Lewis Young Robertson & Burningham, Inc.
Date: April 13, 2018
Re: Supportable Commercial Zoning Analysis

SUMMARY

Nibley City (the "City") engaged Lewis Young Robertson and Burningham, Inc. ("LYRB") to determine the appropriate amount of commercial zoning within the City. Important demographics to help evaluate this objective include income, population growth, historic taxable sales, and estimated new growth. This analysis utilizes two methodologies to determine supportable commercial zoning. Based on estimated retail related per capita spending and State spending statistics, the total supportable commercial zoning is estimated at approximately 164 acres to 216 acres. The second methodology produces a larger range of commercial zoning with a low of 45 acres to a high of 2,000 acres based on a comparison of zoned commercial land per capita from other communities. Based on this analysis the supportable zoning is likely to be in the range of 150 to 300 acres at buildout. Commercial growth will develop around neighborhood scale retail, which provides personal services, food services, gas and lodging and general retail purchases.

CURRENT POPULATION

An analysis of absolute population growth shows that the State of Utah increased by approximately 280,000 persons from 2010 through 2016. Nibley increased by approximately 1,300 persons.

HISTORIC POPULATION

	April 1, 2010		Population Estimates as of July 1						
	Census	Base	2010	2011	2012	2013	2014	2015	2016
Nibley	5,438	5,469	5,568	5,759	5,869	5,995	6,195	6,444	6,747
State of Utah	2,763,885	2,763,889	2,775,260	2,815,430	2,854,222	2,899,961	2,938,671	2,984,917	3,044,321
Nibley as % of State	0.20%	0.20%	0.20%	0.20%	0.21%	0.21%	0.21%	0.22%	0.22%

Source: US Census

INCOME

In the last six years, the median household income in the City grew at an average annual growth rate (AAGR) of 2.1 percent, from \$50,302 in 2001 to \$64,029 in 2016. It is important to note that while Nibley's household income is higher than the State, the per capita income is slightly lower, with Nibley at \$20,777 compared to the State at \$25,600.

MEDIAN HOUSEHOLD INCOME

	2010	2011	2012	2013	2014	2015	2016	6.00
Nibley	\$56,421	\$55,739	\$58,193	\$60,667	\$61,483	\$63,374	\$64,029	2.1%
Cache County	\$39,004	\$39,276	\$40,434	\$41,130	\$42,259	\$43,011	\$44,518	2.2%
State of Utah	\$42,902	\$43,706	\$45,454	\$46,811	\$48,672	\$50,123	\$51,184	3.0%

Source: Utah Tax Commission

SALES GAP ANALYSIS

A sales gap (aka "leakage") analysis is conducted in order to identify economic development opportunities for a community by evaluating the total purchases made by residents inside and outside the community (hence, the term "leakage" for sales lost outside the community). This type of analysis first identifies sales within the State of Utah for each major North American Industry Classification System (NAICS) code category and then calculates the average sales per capita in each category. Per capita sales



in the community are compared to average per capita sales statewide in order to estimate what portion of resident purchases are being made within the community, and what amount is leaving the community. Communities with a lower per capita sales figure compared to the State average are experiencing “leakage”, whereas communities with a higher ratio are “capturing” higher taxable sales. A comparison of annual taxable sales data illustrates Nibley is one of the lowest within Cache Valley on a per capita basis. Based on current commercial development and population, it is likely the City experiences general leakage in all retail categories.

COMPARABLE TAXABLE SALES DATA

CITY	CY2014	CY2015	CY2016	% OF TOTAL	POPULATION	PER CAPITA
North Logan	\$214,359,484	\$225,835,392	\$233,837,983	13.6%	10,590	\$22,081
Logan	\$967,576,081	\$1,043,444,247	\$1,103,869,432	64.2%	50,676	\$21,783
Hyde Park	\$46,637,582	\$55,682,797	\$59,011,027	3.4%	4,513	\$13,076
Providence	\$53,547,471	\$54,642,881	\$57,655,995	3.4%	7,270	\$7,931
Smithfield	\$73,050,562	\$76,209,947	\$82,507,497	4.8%	11,146	\$7,402
Amalga	\$3,793,652	\$4,211,853	\$3,754,770	0.2%	516	\$7,277
Hyrum	\$43,806,348	\$55,376,761	\$52,908,395	3.1%	8,027	\$6,591
Lewiston	\$10,167,979	\$9,190,422	\$10,908,714	0.6%	1,806	\$6,040
Richmond	\$12,492,481	\$12,478,335	\$14,797,168	0.9%	2,600	\$5,691
Cache County (Unincorporated)	\$35,824,558	\$36,534,657	\$36,830,378	2.1%	6,565	\$5,610
River Heights	\$3,429,949	\$4,621,572	\$9,967,453	0.6%	1,962	\$5,080
Wellsville	\$10,257,101	\$11,016,650	\$14,672,643	0.9%	3,678	\$3,989
Paradise	\$2,799,899	\$2,593,204	\$2,945,599	0.2%	950	\$3,101
Millville	\$5,242,349	\$5,945,098	\$6,125,488	0.4%	1,986	\$3,084
Nibley	\$16,558,965	\$20,226,210	\$20,696,200	1.2%	6,747	\$3,067
Newton	\$1,737,663	\$1,706,688	\$2,038,292	0.1%	797	\$2,557
Mendon	\$3,353,878	\$3,758,661	\$3,355,905	0.2%	1,386	\$2,421
Cornish	\$749,941	\$560,898	\$722,189	0.0%	315	\$2,293
Trenton	\$777,120	\$988,299	\$892,678	0.1%	512	\$1,744
Clarkston	\$993,845	\$1,022,695	\$1,141,223	0.1%	711	\$1,605
Total	\$1,507,156,908	\$1,626,047,267	\$1,718,639,029	100.0%	\$122,753	\$14,001

Source: Utah State Tax Commission, LYRB

NIBLEY CITY RETAIL LEAKAGE/SURPLUS INDEX BY MAJOR STORE TYPE

While the table above provides an overview of Nibley City sales leakage as well as a comparison to surrounding communities, a more detailed analysis was recently completed by Buxton Company for Nibley and Hyrum Cities. The following table provides the leakage/surplus indices as well as sales potential and estimated sales for twelve major store types.

NIBLEY LEAKAGE/SURPLUS INDEX

STORE TYPE	POTENTIAL	ESTIMATED SALES	SURPLUS/LEAKAGE
Motor Vehicle Parts & Dealers	18,687,277	7,353,009	0.4
Furniture & home Furnishing Stores	1,537,164	0	0.0
Electronics & Appliance Stores	2,207,935	480,396	0.2
Building Material & Garden Equipment & Supply Dealers	3,607,027	2,254,667	0.6
Food & Beverage Stores	9,448,932	0	0.0
Health & Personal Care Stores	4,712,458	0	0.0
Clothing & Clothing Accessories Stores	3,235,747	1,123,533	0.3
Sporting Goods, Hobby, Book, & Music Stores	3,448,476	4,335,385	1.3
General Merchandise Stores	10,358,687	0	0.0
Miscellaneous Store Retailers	1,595,531	2,492,045	1.6
Food Service & Drinking Places	6,944,819	0	0.0
Total	65,784,053	18,039,035	0.3

The indices can be interpreted as follows:

1.0 = equilibrium, meaning that demand and sales in the area being analyzed are in balance.

.80 = demand exceeds sales by 20%, meaning that consumers are leaving the area being analyzed.

1.2 = sales exceed demand by 20%, meaning that consumers are coming from outside the area being analyzed.



HYRUM CITY RETAIL LEAKAGE/SURPLUS INDEX BY MAJOR STORE TYPE

The following table provides the leakage/surplus indices as well as sales potential and estimated sales for twelve major store types in Hyrum City.

HYRUM LEAKAGE/SURPLUS INDEX

STORE TYPE	POTENTIAL	ESTIMATED SALES	SURPLUS/LEAKAGE
Motor Vehicle Parts & Dealers	24,143,446	17,138	0.0
Furniture & home Furnishing Stores	2,016,146	857,919	0.4
Electronics & Appliance Stores	2,672,232	565,773	0.2
Building Material & Garden Equipment & Supply Dealers	5,383,063	26,198,025	4.9
Food & Beverage Stores	13,111,383	28,762,620	2.2
Health & Personal Care Stores	6,833,747	7,453,214	1.1
Clothing & Clothing Accessories Stores	4,197,570	501,783	0.1
Sporting Goods, Hobby, Book, & Music Stores	3,444,725	22,613	0.0
General Merchandise Stores	13,589,416	3,121,764	0.2
Miscellaneous Store Retailers	2,197,100	0	0.0
Food Service & Drinking Places	9,716,552	4,008,992	0.4
Total	87,305,380	71,509,841	0.8

The indices can be interpreted as follows:

1.0 = equilibrium, meaning that demand and sales in the area being analyzed are in balance.

.80 = demand exceeds sales by 20%, meaning that consumers are leaving the area being analyzed.

1.2 = sales exceed demand by 20%, meaning that consumers are coming from outside the area being analyzed.

As shown above, Nibley City's capture rate is well below the "equilibrium" with demand exceeding sales by 70 percent.

SUPPORTABLE COMMERCIAL ZONING

To determine the supportable commercial zoning within the City, this analysis evaluates future taxable sales growth, per capita spending by sector, and general commercial zoning ratios from other communities. Using two different methodologies, this analysis provides an estimate of supportable acreage by the following categories: general retail, industry, services, and total commercial acreage.

The first methodology employed in this analysis utilizes estimated retail related per capita spending and State spending statistics adjusted for the lower per capita incomes witnessed in the City. The State income adjusted per capita spending in 2016 for general retail, industry, and services was \$15,063. Assuming a total buildout population of 26,565 (based on 6,900 housing units estimated at buildout and an average household size of 3.85 according to the 2010 US Census) and a capture rate of 60 percent of local spending, the total supportable commercial zoning is estimated at approximately 164 acres. This assumes a median sales volume of \$168 per square foot of gross leasable area (GLA) and a floor area ratio (FAR) of 0.2. A capture rate of 60 percent is used based on the capture rate of two Utah communities of similar size (population of approximately 30,000).

SUPPORTABLE COMMERCIAL ZONING BASED ON AVERAGE PER CAPITA SPENDING

Analysis Based on State Per Capita Spending	General Retail	Industry	Services	Other	Total
Per Capita Spending (State Income Adjusted)	\$9,014	\$2,226	\$3,134	\$689	\$15,063
Capture Rate	60%	60%	60%	60%	60%
Captured Spending	\$5,408	\$1,336	\$1,880	\$414	\$9,038
Total Population at Buildout	26,565	26,565	26,565	26,565	26,565
Total Spending at Buildout	\$143,673,091	\$35,482,820	\$49,948,841	\$10,988,890	\$240,093,642
Median Sales Volume Per Sq.Ft. of GLA	\$168	\$168	\$168	\$168	\$168
Supportable SF	854,993	211,157	297,244	65,394	1,428,789
General Commercial Floor to Area Ratio	0.20	0.20	0.20	0.20	0.20
Acres Supportable (Based on State per Capita Spending)	98.14	24.24	34.12	7.51	164.00
Nibley Currently Developed Commercial/Industrial					109.97
Nibley Total Zoned Commercial/Industrial					179.93

Per Capita Spending (State Income Adjusted) is based on 2016 per Capita Taxable Sales for the State of Utah, assuming a Statewide population of 3,044,321, with per capita income of \$25,000. Nibley's per capita income is \$20,777, or 81.2 percent of the State total. General Retail includes building materials, clothing, food & beverage, furniture, health and personal, misc. retail, sporting goods, etc. Industry includes construction, information, manufacturing, transportation & warehousing and utilities. Services includes accommodation, admin, arts and entertainments, education, finance and insurance, public administration, etc.



A median sales volume of \$168 is used based on national data from the Dollars & Cents Shopping Center database. A comparison of retail establishments with in Utah illustrates an average of \$112 to \$368 per square foot.

COMPARABLE SALES PER SQUARE FEET

Comparable Retail Spending per SF	Retail 1	Retail 2	Retail 3	Retail 4	Average
Retail Median Sales Volume Per Sq.Ft.	\$98	\$126	\$182	\$41	\$112
Big Box Sales Volume per Sq. Ft.					\$368
Big Box sales volume is based on 15 retail tenants ranging in size from 6,500 square feet to 50,000 square feet.					

While the tables above illustrate an estimate of supportable acreage based on averages, it is important to note that the assumptions related to FAR and median sales volume will vary by development type. For example, general retail may support an FAR of 0.15, compared to industrial which typically is higher at 0.30. In addition, retail sales is typically lower for industrial uses. The table below illustrates the supportable square footage based on adjustments, which consider land use type.

SUPPORTABLE COMMERCIAL ZONING BASED ON ADJUSTED ASSUMPTIONS

Analysis Based on State Per Capita Spending	General Retail	Industry	Services	Other	Total
Per Capita Spending (State Income Adjusted)	\$9,014	\$2,226	\$3,134	\$689	\$15,063
Capture Rate	60%	60%	60%	60%	60%
Captured Spending	\$5,408	\$1,336	\$1,880	\$414	\$9,038
Total Population at Buildout	26,565	26,565	26,565	26,565	26,565
Total Spending at Buildout	\$143,673,091	\$35,482,820	\$49,948,841	\$10,988,890	\$240,093,642
Median Sales Volume Per Sq.Ft. of GLA	\$168	\$84	\$168	\$168	
Supportable SF	854,993	422,314	297,244	65,394	1,639,946
General Commercial Floor to Area Ratio	0.15	0.30	0.15	0.20	0.17
Acres Supportable (Based on State per Capita Spending)	130.85	32.32	45.49	7.51	216.17
Nibley Currently Developed Commercial/Industrial					109.97
Nibley Total Zoned Commercial/Industrial					179.93

SUPPORTABLE ZONING BY CAPTURE RATE

Capture Rate	Supportable SF	Supportable SF Based on FAR and Sale Adjustments
10%	27.33	36.03
20%	54.67	72.06
30%	82.00	108.08
40%	109.33	144.11
50%	136.67	180.14
60%	164.00	216.17
70%	191.34	252.20
80%	218.67	288.22
90%	246.00	324.25
100%	273.34	360.28

Using an alternative capture rate also will produce different results, with a 100 percent capture rate supporting a total of nearly 275 to 360 acres of commercial space. It is important to note that this methodology may not account for the full industrial space that could be supported within a community, as this type of land development is not necessarily tied to taxable sales statistics. Industrial development can be stimulated by economic incentives, access to key workforce demographics, availability of land and access to key infrastructure and/or natural resources. In addition, total office space may not be captured in the industry, services and other category.

Employing an alternative methodology yields similar results, but may also show the impacts of industrial and office space. A

comparison of zoned commercial land per capita for other communities produces a range of commercial zoning from a low of 45 acres to a high of 2,000 acres. The extreme highs in the table below are based on a comparison of two communities that have a large amount of industrial development. It is unlikely that Nibley will have the scale of this type of development. Therefore, the estimate based on data from Eagle Mountain, Bountiful and Saratoga Springs may be more appropriate, which is more in line with the data from the first methodology.

COMPARISON OF COMMERCIAL ACRES PER CAPITA

	NIBLEY	EAGLE MOUNTAIN	BRIGHAM CITY	NORTH SALT LAKE	BOUNTIFUL	SARATOGA SPRINGS
Population	6,747	29,202	18,975	20,301	44,078	26,887
Commercial Acres per Capita	0.027	0.002	0.044	0.075	0.011	0.005

	NIBLEY	EAGLE MOUNTAIN	BRIGHAM CITY	NORTH SALT LAKE	BOUNTIFUL	SARATOGA SPRINGS
Total Commercial Acres Supportable In Nibley Based on Comparable	179.93	45.48	1,165.92	2,001.65	304.55	132.00

The scenarios above show supportable acres ranging from 45 acres to 300 acres, compared to the current total commercial/industrial zoned land for Nibley of 179.93. It is likely that commercial growth will develop around neighborhood scale retail, which provides personal services, food services, gas and lodging and general retail purchases.

Nibley's proximity to regional retail in Logan, limited access and rural population will make it challenging to support a higher amount of commercial acreage. Lower population levels or continued sales leakage will result in less commercial acreage within the community. However, if the City allows for greater densities, resulting in an increase in buying power and capture rates, the area could see higher levels of commercial development. Methods to promote increased commercial development include:

- ☞ Allow for more residential development and population growth;
- ☞ Provide development incentives;
- ☞ Promote niche markets that will capture sales from surrounding communities; and
- ☞ Promote other types of commercial development (industrial, tech, office, etc.).