

4:45 p.m.

Workshop & light refreshments served in the County Council Conference Room

5:30 p.m.

Call to order

Opening remarks/Pledge – Chris Sands

Review and approval of agenda

Review and approval of the minutes of the 28 July 2022 workshop & 4 August 2022 meeting

5:35 p.m.**Consent Items**

1. **West Edge Estates CUP** – A request for a 6-month extension of the effective period of approval for a conditional use permit to operate a storage/warehousing facility (Use Type 3400) located at ~2200 North 1200 West, near Logan, in the Industrial (I) Zone.
2. **One Forty Two Subdivision 1st Amendment** – A request to create a new buildable lot in an existing one-lot subdivision with an agricultural remainder on 47.4 acres located at 7550 North Highway 142, near Newton, in the Agricultural (A10) Zone.
3. **Lee Nelson Minor Subdivision 1st Amendment** – A request to expand the boundaries of an existing two-lot subdivision with an agricultural remainder and create a new buildable lot on 41.15 acres located at 10375 South Highway 165, Avon, in the Agricultural (A10) Zone.

Regular Action Items

4. **Public Hearing (5:40 pm): Cache County General Plan** – A public hearing to review the County's proposed supplemental Appendices to the General Plan: The Urban and Rural Area Assessment and the Cost of Services Plan. The Planning Commission will review the General Plan appendices, take public comment, and forward a recommendation to the County Council.
5. **Discussion:** The review and amendment of Title 17.07.030 Use Related Definitions and Title 17.07.040 General Definitions including but not limited to uses and definitions related to the following uses:
 - 6400 Mineral Extraction
 - 6410 Topsoil Extraction
 - 6420 Site Grading

Board Member Reports

Staff reports

Adjourn

Public Participation Guide: Planning Commission

This document is intended to guide citizens who would like to participate in a public meeting by providing information about how to effectively express your opinion on a particular matter and the general powers and limitations of the Planning Commission.

When Speaking on an Agenda Item

Once the Commission opens the public hearing or invites the public to comment on a public meeting agenda item, approach the podium to comment. Comments are limited to 3 minutes per person, unless extended by the Chair of the Planning Commission.

When it is your turn to speak:

1. State your name and address and the organization you represent, if applicable.
2. Indicate whether you are for or against the proposal.
3. Make your statement.
 - a. Include all pertinent facts within your knowledge;
 - b. Avoid gossip, emotion, and repetition;
 - c. Comments should be addressed to the Commission and not to individuals in the audience; the Commission will not allow discussion of complaints directed at specific individuals;
 - d. A clear, concise argument should focus on those matters related to the proposal with the facts directly tied to the decision you wish the Commission to make without repeating yourself or others who have spoken prior to your statement.

Legislative (Public Hearing) vs. Administrative (Public Meeting) Functions

The Planning Commission has two roles: as a recommending body for items that proceed to the County Council for final action (legislative) and as a land use authority for other items that do not proceed to the County Council (administrative).

When acting in their legislative capacity, the Planning Commission has broad discretion in what their recommendation to the County Council will be and conducts a public hearing to listen to the public's opinion on the request before forwarding the item to the County Council for the final decision. Applications in this category include: Rezones & Ordinance Amendments.

When acting in their administrative capacity, the Planning Commission has little discretion and must determine whether or not the landowner's application complies with the County Code. If the application complies with the Code, the Commission must approve it regardless of their personal opinions. The Commission considers these applications during a public meeting and can decide whether to invite comment from the public, but, since it is an administrative action not a legislative one, they are not required to open it to public comment. Applications in this category include: Conditional Use Permits, Subdivisions, & Subdivision Amendments.

Limits of Jurisdiction

The Planning Commission reviews land use applications for compliance with the ordinances of the County Land Use Code. Issues related to water quality, air quality, and the like are within the jurisdiction of the State and Federal government. The Commission does not have authority to alter, change, or otherwise act on issues outside of the County Land Use Code.

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Regular Action Items

1. **Discussion: General Plan, Regional Collaboration Plan, Urban and Rural Area Assessment, and Cost of Services Plan review and discussion 2**

DRAFT

1 **Present:** Lane Parker, Jason Watterson, Chris Sands, Melinda Lee, Brandon Spackman, Nolan Gunnell,
2 Time Watkins, Lauren Ryan, Angie Zetterquist

3 **Start Time: 05:30:00**

4 **Sands** called the meeting to order and **Watkins** gave the opening remarks.

5 **05:32:00**

6 **Agenda**

7 **Approved with no objection.**

8 **05:33:00**

9 **Regular Agenda**

10 **#1 Discussion: General Plan, Regional Collaboration Plan, Urban and Rural Area Assessment, and**
11 **Cost of Services Plan review and discussion**

12 **Ryan** reviewed the information for the general plan, regional collaboration plan, urban and rural area
13 assessment, and cost of services plan.

14 **Staff** and **Commissioners** discussed the zip code graphic, wildlife corridors, and what visit-ability means
15 and making sure it is defined in the glossary of terms.

16 **Staff** and **Commissioners** discussed clustering in the FR40 zone, the urban expansion overlay,
17 commercial areas, and what special service districts are, if a branding plan for Cache Valley needs to be
18 included, and collaborating with cities on growth and zoning, and developers paying for services to
19 subdivisions being developed and cost of services.

20 **Staff** and **Commissioners** discussed the Regional Collaboration Plan and making sure wording is
21 inclusive of new residents to Cache Valley.

22 **Watkins** reviewed the Cost of Services Plan.

23 **Staff** and **Commissioners** discussed how the cost of services plan is a supplemental document, growth
24 trends and patterns, and how the analysis was created and that they will be an appendixes to the general
25 plan.

26 **Staff** informed the Commission that the documents will be made public after this meeting.

27 **07:20:00**

28 **Adjourned**

29

30

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Consent Items

1. Rocky Mountain Reindeer Farm CUP 2

Regular Action Items

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10. Discussion: Floodplain Setback Distance 8
11. Review and amendment of Title 17.07.030 Use Related Definitions and Title 17.07.040 General Definitions including but not limited to use and definitions related to the following uses: 6400 – Mineral Extraction, 6410 – Topsoil Extract, 6420 – Site Grading..... 8

1 **Present:** Angie Zetterquist, Tim Watkins, Lane Parker, Jason Watterson, Brady Christensen, Chris
2 Sands, Melinda Lee, Nate Daus, Nolan Gunnell, Taylor Sorensen, Matt Phillips, Lauren Ryan

3 **Start Time: 05:32:00**

4 **Sands** called the meeting to order and **Daus** gave the opening remarks.

5 **05:34:00**

6 **Agenda**

7 **Approved with no objection.**

8 **05:35:00**

9 **Minutes**

10 **Approved with no objection.**

11 **05:35:00**

12 **Consent Items**

13 **#1 Rocky Mountain Reindeer Farm CUP**

14 ***Watterson** motioned to approve the Rocky Mountain Reindeer Farm Conditional Use Permit 6-month*
15 *extension; **Lee** seconded; **Passed 6, 0.***

16 **05:37:00**

17 **Regular Agenda**

18 **#2 Monticello Meadows Subdivision**

19 **Zetterquist** reviewed the staff report for the Monticello Meadows Subdivision.

20 **Staff** and **Commissioners** discussed conditions #5 and #6.

21 ***Christensen** motioned to approve the Monticello Meadows Subdivision with the 12 conditions and 1*
22 *conclusion; **Watterson** seconded; **Passed 6, 0.***

23 **05:41:00**

24 **#3 Public Hearing (5:40 PM): Smithfield Country Estates Rezone**

25 **Watkins** gave an update on subdivisions and the Rural 2 (RU2) Zone in relations to the general plan.

26 **Zetterquist** reviewed the staff report for the Smithfield County Estates Rezone.

27 **05:52:00**

1 **Lee** motioned to open the public hearing for the Smithfield Country Estates Rezone; **Daug**s seconded;
2 **Passed 6, 0.**

3 **Marc Ensign** commented on wanting 5 lots on the acreage and 3.5 acres of open space, and feels like 5
4 acre lots provides more housing options and a buffer between higher density housing in Smithfield and
5 the more rural areas of the county, and on the public comments received by staff

6 **Sands** asked if a follow up wetlands delineation would be done.

7 **Mr. Ensign** responded no because he plans to leave the wetlands alone.

8 **Christensen** asked about the land drains.

9 **Mr. Ensign** responded that he wasn't familiar with the land drains but he has only seen a hand sketched
10 diagram and he has been told by the surveyor that there are no land drains he needs to deal with.

11 **Commissioners** discussed the land drains and hand drawn maps.

12 **Mr. Ensign** responded he has talked with the health department and Smithfield City and if other
13 problems arise they could be mitigated.

14 **Maya Pitcher** commented as the property own to the west against the rezone due to water, water drain
15 concerns, road concerns, traffic, winter road concerns, and concerns for agriculture.

16 **Watterson** asked about the field drain.

17 **Ms. Pitcher** responded that the field drain waters her land and the field drain is very important to her
18 farm.

19 **Chris Easter** commented against the rezone on concerns for water and wells, and traffic and road
20 conditions.

21 **Greg Darrrough** commented for the rezone due to wanting to develop their property in the future.

22 **Julie Nield** commented on wanting to preserve open space, being careful with density, and ground water
23 concerns.

24 **Kirk Kimball** commented regarding against the rezone wanting to live in a rural area, preserving open
25 space, septic systems.

26 **Madeleyna Kimball** commented against the rezone wanting due to wanting the area to remain
27 agriculture and rural.

28 **Robert Gunnell** commented against the rezone on difficulties with development, previous development
29 in the area, water drains in the area, concerns with drilling more wells, and aquifer depletion.

30 **Lisa Peterson** commented against the rezone wanting the area to remain agricultural, roads, traffic, water
31 and development affecting existing wells.

1 06:29:00

2 **Parker** motioned to close the public hearing; **Lee** seconded; **Passed 6, 0.**

3 **Commissioners** discussed the distance from Smithfield and development annexing into cities,
4 consistency with previous RU2 rezones precedents, water and field drains in the area.

5 **Christensen** motioned to recommend denial to the County Council for the Smithfield Country Estates
6 Rezone based on the 4 conclusions; **Parker** seconded; **Passed 6, 0.**

7 06:39:00

8 **#4 Public Hearing (5:55 PM): Campbell Rezone**

9 **Zetterquist** reviewed the staff report for the Campbell Rezone.

10 **Staff** and **Commission** discussed access and roads used by the rezone.

11 06:46:00

12 **Parker** motioned to open the public hearing for the Campbell Rezone; **Daug**s seconded; **Passed 6, 0.**

13 **Donna Campbell** commented as the applicant on the reasons for the RU2 request, how it fits with the
14 surrounding area, and water.

15 06:49:00

16 **Lee** motioned to close the public hearing for the Campbell Rezone; **Watterson** seconded; **Passed 6, 0.**

17 **Commissioners** discussed septic, location of rezone in relation to Mendon City, and history of the RU2
18 rezone approvals.

19 **Parker** motioned to recommend denial to the County Council for the Campbell Rezone with 3
20 conclusions; **Watterson** seconded; **Passed 6, 0.**

21 06:54:00

22 **#5 Providence City Cemetery Expansion Conditional Use Permit**

23 **Zetterquist** reviewed the staff report for the Providence City Cemetery Expansion Conditional Use
24 Permit (CUP).

25 **Ryan Snow** commented as the city manager for Providence City and stated that Providence City feels
26 there should be no conditions since the cemetery has been operated before the County had land use
27 authority.

28 **Christensen** asked about the opposition for the conditions.

1 **Mr. Snow** stated the property has been continuously used for 150 years and is grandfathered in to the
2 County and Providence City is against the conditions being imposed and doesn't feel they should be
3 required.

4 **Watterson** asked what Providence's future plans for the parcels are.

5 **Mr. Snow** stated currently there is no plan for any expansion of the cemetery. Condition #2 is a
6 procedural issue that will delay the construction of the needed building by months. This would not be an
7 issue if a farmer was coming in for this type of use and doesn't see what the benefit of this step is.

8 **Zetterquist** explained how the County Recorder has been recording parcels like this one.

9 **Sands** stated there is no benefit for the commission but they are required to make sure the rules are
10 followed.

11 **Mr. Snow** commented that he had contacted the County Recorder's office about the process.

12 **Christensen** asked why the cemetery isn't annexed into Providence.

13 **Mr. Snow** stated because the cemetery is not contiguous to Providence City and the cemetery is
14 surrounded by River Heights not Providence.

15 **Watterson** asked if River Heights is amenable to annexing the small pieces.

16 **Mr. Snow** commented those are annexed into River Heights.

17 **Gunnell** commented that a road meets the definition of a natural boundary so a new parcel number being
18 issued should be easy.

19 **Mr. Snow** responded if it is something that the County absolutely needs, Providence is willing to do it
20 but asks that the requirement be changed to when a certificate of occupancy is issued so the City can
21 build the needed building.

22 **Zetterquist** and **Watkins** discussed how the County Recorder's office is handling these types of
23 situations.

24 **Zetterquist** explained the legal description that is needed.

25 **Mr. Snow** commented that a survey would be needed for the legal description and a surveyor is several
26 months out.

27 **Staff** and **Commissioners** discussed possibly changing the CUP to allow the change at issuance of a
28 certificate of occupancy and the precedent it can set, and the recorder's office assigning new parcel
29 numbers,

30 ***Daug** motioned to recommend approval for the Providence City Cemetery Expansion Conditional Use*
31 *Permit with the 3 conditions and 3 conclusions; **Watterson** seconded; **Passed 6, 0.***

32 **07:24:00**

1 5 minute recess

2 07:32:00

3 **#6 Hobbled Dog Cidery Conditional Use Permit**

4 **Zetterquist** reviewed the staff report for the Hobbled Dog Cidery Conditional Use Permit (CUP).

5 **Staff** and **Commissioners** discussed the road.

6 **Ben Kuethe** is the applicant and stated they currently have about 500 heirloom apple trees and a deposit
7 down for more. Making wine and hard cider started as a hobby but has grown into a desire to expand into
8 a small business to provide alcoholic and nonalcoholic cider for the area.

9 **Sands** asked if they had seen the conditions.

10 **Mr. Kuethe** responded yes.

11 **Lee** asked about the hours of operations.

12 **Ms. Kuethe** commented that the hours would probably be less to begin with but if there is demand the
13 hours of operation would probably increase.

14 **Steve Martin** commented as a representative for the applicant on the water rights and use for the cidery,
15 tasting room hours and operating hours, road classification and conditions, and employees residing on
16 site.

17 **Daug**s asked about the change of application for the water.

18 **Mr. Kuethe** responded that 7 shares are pressurized irrigation and there is a drip system for that and 3
19 shares are attached to house but 1 share will be transferred to a commercial use for the business.

20 **Daug**s motioned to approve the Hobbled Dog Cidery Conditional Use permit with the 17 conditions and
21 3 conclusions and the editorial changes to the intersection and the employees living on site; **Parker**
22 seconded; **Passed 6, 0.**

23 07:59:00

24 **Lee** motioned to extend the meeting to 9 o'clock pm; **Parker** seconded; **Passed 6, 0.**

25 **#7 Public Hearing (6:30 PM): Cache County General Plan**

26 **Lauren Ryan** reviewed the staff report for the Cache County General Plan.

27 **Staff** and **Commissioners** discussed the law enforcement section, annexation areas, and making sure the
28 plan is a statement of fact and not will statements.

29 08:18:00

1 **Watterson** left.

2 **Watkins** reviewed the Cache Countywide Urban and Rural Area Assessment.

3 **Staff** and **Commissioners** discussed how precedence is set.

4 **08:39:00**

5 ***Daug** motioned to open the public hearing; **Lee** seconded; **Passed 5, 0.***

6 **Allen Lower** commented on the general plan and how other City's master plans affect what the County
7 does and how the information needs to be shared and notification.

8 **Sands** stated that County is striving to do a better job in most areas with the changes to the general plan.

9 **Staff** and **Commissioners** discussed development of property in the unincorporated area that is already is
10 serviceable and property that is going to need to extend services.

11 **08:56:00**

12 ***Daug** motioned to close the public hearing; **Parker** seconded; **Passed 5, 0.***

13 **09:00:00**

14 ***Lee** motioned to extend the meeting until 9:30 pm; **Daug** seconded; **Passed 5, 0.***

15 ***Parker** motioned to recommend approval to the County Council for the Cache County General Plan and
16 the Regional Collaboration Plan with any edits for clarity and correctness as needed; **Lee** seconded;
17 **Passed 5, 0.***

18 **09:03:00**

19 **#8 Public Hearing (7:00 PM)**

20 **Watkins** reviewed the staff report for amending 17.07.030: Use Related Definitions – 4100 Recreational
21 Facility and other potential new or existing Use Related Definitions; 17.07.010: General Definitions –
22 Campground, and other potential or new or existing General Definitions; 17.09.030 Schedule of Zoning
23 Uses by Zoning District – 4100 Recreational Facility; and other potential Sections of Title 17 – Zoning
24 Regulations, to consider appropriate application of recreational facility uses in the zoning districts of
25 Cache County.

26 **Staff** and **Commissioners** discussed having camp grounds be conditional in the commercial zone, and
27 making sure this change is not a knee jerk reaction to public clamor regarding one previous application.

28 **09:19:00**

29 ***Christensen** motioned to open the public hearing; **Parker** seconded; **Passed 5, 0.***

30 **09:20:00**

1 *Christensen* motioned to close the public hearing; *Lee* seconded; **Passed 5, 0.**

2 *Daug*s motioned to recommend approval for the amendments to 17.07.030: Use Related Definitions –
3 4100 Recreational Facility and other potential new or existing Use Related Definitions; 17.07.010
4 General Definitions – Campground, and other potential or new or existing General Definitions;
5 17.09.030 Schedule of Zoning Uses by Zoning District – 4100 Recreational Facility; and other potential
6 Sections of Title 17 – Zoning Regulations and the change to make campgrounds a conditional use in the
7 Commercial Zone; *Lee* seconded; **Passed 5, 0.**

8 **09:23:00**

9 **#9 Discussion: Cherry Peak Ski Area CUP 4th Amendment**

10 **Zetterquist** stated Cherry Peak is working on the information for the CUP 4th amendment but did hold a
11 concert with a special event permit. The item should come back before the Commission at a later date.

12 **09:26:00**

13 **#10 Discussion: Flood Plain Setback**

14 **Will be discussed at a later meeting.**

15 **#11 Review and amendment of Title 17.07.030 Use Related Definitions and Title 17.07.040 General**
16 **Definitions including but not limited to use and definitions related to the following uses: 6400 –**
17 **Mineral Extraction, 6410 – Topsoil Extract, 6420 – Site Grading**

18 **Watkins** reviewed 17.07.030: Use Related Definitions for site grading.

19 **Staff** and **Commissioners** discussed public vs private use of the land and site grading that is done not for
20 building.

21 **09:31:00**

22 **Adjourned**

Memorandum*1 September 2022***To:** Planning Commission**Subject:** 6-month time extension request for the proposed West Edge Estates CUP

A request has been made by Justin Robinson, the agent of the West Edge Estates Conditional Use Permit (CUP), for a 6-month extension of the effective period of approval to operate a storage yard facility (Use Type 3400) on ~49 acres located at 2200 North 1200 West, near Logan, in the Industrial (I) Zone (Attachment A).

The CUP was approved by the Planning Commission on 7 October 2021. The effective approval date for a CUP approval is one year; subsequently, the current expiration date for the approval is 7 October 2022. If the permit is not recorded by the expiration date, the approval is void and the file closed.

Before a CUP can be recorded, all conditions of approval must be met or, as necessary, an improvement agreement for required infrastructure must be in place. As of this date, the applicant still has outstanding conditions of approval. The applicant has been working to meet the outstanding conditions, but needs additional time to finalize the wetland study process.

In 2018, §17.02.050, Effective Period of Land Use Authority Approval, was amended to allow an approval of an administrative land use decision to be extended up to six (6) months at the discretion of the land use authority (§17.02.050(F)). The same code update to Title 17.02 also changed the land use authority for subdivision approvals from the County Council to the Planning Commission in §17.02.030 (Establishing Land Use Authority Duties, Authorities, and Powers). Consequently, the Planning Commission is the land use authority with the power to consider this extension request.

Section 17.02.050(F)(2), specifies that the applicant bears the burden of proving the conditions justifying an extension have been met and the land use authority may approve an extension request only if:

- “a. The reason for the request is not economic.
- b. The applicant has shown a clear pattern of working to record the plat or permit throughout the entirety of the approval period.”

The submitted request for a time extension provides the following reasoning:

1. The remaining conditions for the subdivision are in process, but it cannot be completed prior to the expiration date for the subdivision.

Staff recommends that the Planning Commission approve this request to extend the effective date of approval to **7 April 2023**, the full 6-month time extension allowed per code, as:

1. The request for a time extension complies with the requirements of §17.02.050(F) and the applicant has shown a clear pattern of working to record the plat through the approval period.

Staff Report: West Edge Estates CUP

7 October 2021

This staff report is an analysis of the application based on adopted county documents, standard county development practices, and available information. The report is to be used to review and consider the merits of the application. Additional information may be provided that supplements or amends this staff report.

Agent: Justin Robinson

Parcel ID#: 04-075-0002, -0003

Staff Determination: Approval with Conditions

Type of Action: Administrative

Land Use Authority: Planning Commission

Project Location

Reviewed by Angie Zetterquist and Tim Watkins

Project Address:

~2200 N 1200 W

near Logan

Current Zoning:

Industrial

Acres: ~49

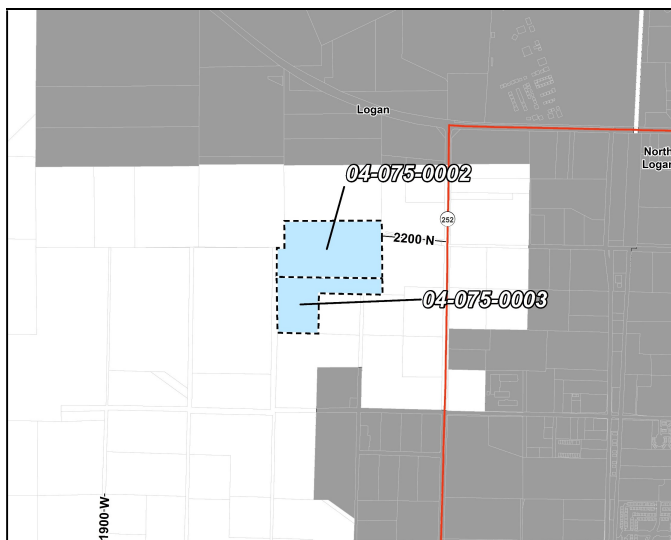
Surrounding Zoning & Land Uses:

North – A10, Agricultural

South – A10, Agricultural

East – I (Industrial), Storage Yard

West – A10, Agricultural



Parcel Context Description: Located about $\frac{3}{4}$ of a mile southwest of the Logan Airport, this vacant property was rezoned from A10 (Agricultural) to I (Industrial) as Ordinance 2021-16 by the Cache County Council in June 2021. The rezone boundary did not match the existing parcels and the applicant was advised to complete a boundary line adjustment so that the rezone area matched the parcel prior to submitting an application for a CUP.

- A boundary line adjustment (BLA) was recorded on May 26, 2021, but the Recorder's Office has not finalized the recording as of this date. The updated parcel lines are shown in yellow (above right).
- The property is accessed from 2200 N that extends west from SR 252.

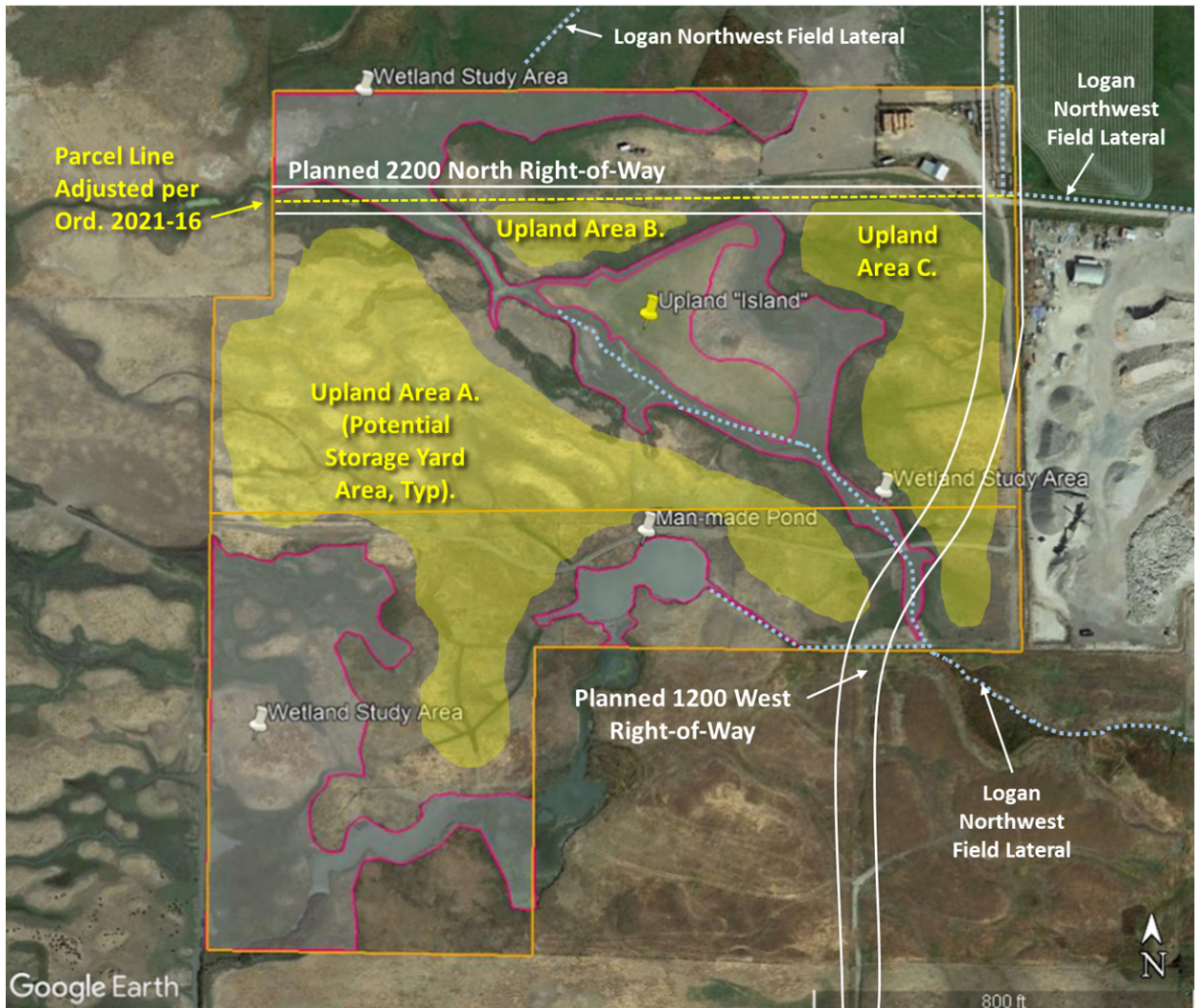
Findings of Fact

A. Request description

1. The West Edge Estates Conditional Use Permit (CUP) is a request to operate a Storage/Warehousing Facility (Use Type 3400) on ~49 acres located on two parcels at ~2200 North 1200 West, near Logan, in the Industrial (I) Zone.
2. Applicable Standards. The applicant intends to stockpile recycled materials such as used asphalt and concrete on non-wetland areas of the property, similar to the storage operated West Edge Estates on the adjacent parcel to the east. Development standards for the Industrial (I) Zone include the following:
 - a. Section §17.17.030 definition of Use Type 3400 (Storage and Warehousing) states that a facility such as a storage yard is to be used for dead storage only. No business activities may be conducted from a storage facility other than those that are clearly ancillary to the primary business. A Salvage yard facility is also allowed for storing, keeping, selling, dismantling, shredding, compressing, or salvaging scrap or discarded material or equipment.
 - b. Setbacks. Per the Use Setback Distances Table in §17.10.040, a 30 foot use setback applies to property boundaries shared with adjacent A10 zoning districts, and a 15 foot setback applies to boundaries with I or C (Commercial) zoning districts. The storage of material or placement of structures or parking within the setback areas is not permitted.
 - c. §17.10.030. Screening and Landscaping Standards
 - i. Screening and landscaping is required along common boundaries between industrial uses with I (Industrial) zoning and other properties with A10 zoning.
 - ii. The screen may be a fence, wall, berm or approved landscaping or some combination of the same. Landscaping is required on 10% of the gross area of the project site.
 - iii. The planning commission may modify any provision of screening and landscaping in this section if strict adherence to a requirement should be delayed or is deemed unnecessary.
 - d. Non-Developable Wetlands
 - i. §17.18.050 states that no building, structure, construction, excavation, or land filling shall occur on any area determined to be a jurisdictional wetland without the approval and necessary wetlands permit(s), as required by the U.S. Army Corps of Engineers. Where potential wetlands exist, wetland delineation may be required.
 - ii. §17.18.040. A sensitive area analysis is required to identify non-developable wetland areas discovered in the process of development, and requires determination and development plan including proposed mitigations. As determined by the county, an approved jurisdictional wetland delineation report and concurrence report from the United States Army Corps of Engineers is required as part of the wetland analysis.
 - e. A stormwater report must also be prepared by a licensed professional for the review and approval of the Public Works Department detailing how the proposed limited development will manage rainfall on-site and prevent the discharge off-site or into potential wetland areas. Any expansion of the operation outside of those specified areas, must come back to the Land Use Authority to amend the Conditional Use Permit, so it is essential that the site plan provide more detail and to confirm that any run-off

from these areas will not negatively impact potential wetland areas prior to the wetland analysis and delineation are completed.

- f. According to the recorded plat, a right-of-way for a County Road is to extend along the approximate 1200 West alignment of the property. The planned right-of-way will extend through wetland study areas and upland areas identified for the proposed storage yard.
 - i. The preferred alignment by Cache County Engineering and Logan City Engineering is depicted on the plan map above, and shown in a letter from Logan City Public Works to the Cache County Public Works Director (See Attachment C).
- g. 2200 West is also planned as a county road to extend along the north property boundary of Parcel 04-075-0002.



3. The project is described in the applicant's Letter of Intent and Site Plans (Attachment A and Attachment B). The site map below is derived from the Wetlands Study Area site plan (Attachment B) with additional annotations showing portions of the Logan Northwest Field

Lateral canal network. The canal laterals branch throughout this property and surrounding parcels to provide flood irrigation in support of livestock grazing.

4. The applicant has consulted with Dennis Wenger, Senior Wetlands Ecologist with Frontier Corporation – Environmental Consultants to provide initial site inspections and differentiate dry upland areas from potential wetland areas that may have been artificially created by irrigation water and/or artesian well water. Some of the reported upland areas that may accommodate potential storage yard activity are highlighted in yellow, and further study is needed to define the limits of phase 1 storage yard activity (*See Condition 3e*).
5. The areas identified on the plan map as ‘wetland study areas’ are recommended for future study to verify the presence of wetland hydrology as part of a wetland delineation / determination study. Much of these potential wetland areas are believed to be low-lying flood irrigation areas given the lack of wetland hydrology indicators. The applicant proposes to evaluate these areas during the 2022 growing season once the irrigation water has been permanently removed from the property.
6. The applicant’s intention is to phase out of storage yard operations on the adjacent parcel (04-076-0001) to the east to accommodate new warehouse industrial site development.
7. No additional truck and vehicle trips are anticipated from the new proposed storage yard facility. Any additional vehicles associated with future activity or new industrial site development must be coordinated with UDOT to review impacts onto SR 252 and any mitigating improvements.

B. Conditional Uses *See conclusion #1*

8. §17.06.050-B, Conditional Uses, directs the Land Use Authority to review conditional use permit (CUP) requests based on the standards and criteria that are defined therein and include:
 - a. Compliance with law;
 - b. Health, safety, and welfare;
 - c. Adequate service provision;
 - d. Impacts and mitigation.

C. Compliance with law *See conclusion #1*

9. The County Land Use Ordinance stipulates that:
 - a. The proposed conditional use must comply with the regulations and conditions specified in the County Code and other applicable agency standards for such use.
 - b. The proposed conditional use must be consistent with the intent, function, and policies of the Cache County General Plan, Ordinance(s), and land use, and/or compatible with existing uses in the immediate vicinity.
10. §17.02.060, Establishment of Land Use Authority, authorizes the Planning Commission to act as a Land Use Authority for a CUP. *See conclusion #2*
11. §17.07.030, Use Related Definitions. The proposed use is defined as a Storage Yard under use type 3400 Storage and Warehousing to store large equipment and vehicles; bulk construction materials and buildings or structures for uses such as offices or repair facilities.
12. §17.09.030, Schedule of Uses by Zoning District, permits this use as a CUP in the Industrial (I) Zone if reviewed and approved in accordance with the conditional use review procedures of §17.06 Uses as noted.
13. Parcel legality: Parcel 04-075-0002 has been in the same size and configuration since 2006. Parcel 04-075-0002 was legally adjusted as a boundary line adjustment in May 2021.

14. There are no other uses other than agricultural grazing, or approved or active Conditional Use Permits on the parcels proposed for the storage yard use.
15. The County Code standards identified Section A.2 apply to the I (Industrial) zone.

D. Health, safety, and welfare *See conclusion #1*

16. The County Land Use Ordinance stipulates that:
 - a. Proposed CUP uses must not be detrimental to the public health, safety and welfare of persons residing or working in the vicinity, or injurious to property or improvements in the vicinity. A conditional use shall be considered detrimental if:
 - i. It causes unreasonable risks to the safety of persons or property because of vehicular traffic or parking, or other similar risks, and/or;
 - ii. It unreasonably interferes with the lawful use of surrounding property.
17. Other risks to the safety of persons or property are not anticipated, as the use does not unreasonably interfere with the lawful use of surrounding properties so long as the conditions of approval are met.

E. Adequate service provision *See conclusion #1*

18. The County Land Use Ordinance stipulates that:
 - a. The proposed conditional use must not result in a situation that creates a need for essential services that cannot be reasonably met by local service providers, including but not limited to: Roads and year round access for emergency vehicles and residents, fire protection, law enforcement protection, schools and school busing, potable water, septic/sewer, storm water drainage, and garbage removal.
19. Access and Road Right-of-Way Dedication:
 - a. Access to the property is from 2200 N which extends west from SR 252. 2200 N is planned to extend west, which will require 66 foot right-of-way dedication along the north boundary of Parcel 04-075-0002, and improvement as a Major Local Road.
 - i. Applicants will need to provide documentation from UDOT on change of access approval to SR-252.
 - b. The planned alignment of 1200 West requires dedication of a 66 foot right-of-way and improvement as a Minor Local Road from the north of Parcel 04-075-0002 to the south of Parcel 0003.
20. Fire: §16.04.080 [C] Fire Control – The County Fire District has reviewed the proposed Storage and Warehousing use and has identified no impacts or conditions.

F. Impacts and mitigation

21. Utah Code Annotated §17-27a-506, Conditional uses, item 2-a specifies that “A conditional use shall be approved if reasonable conditions are proposed, or can be imposed, to mitigate the reasonably anticipated detrimental effects of the proposed use in accordance with applicable standards.”
22. The County Land Use Ordinance stipulates that:
 - a. Reasonably anticipated detrimental effects of the proposed conditional use must be substantially mitigated by the proposal or by the imposition of reasonable conditions to achieve compliance with applicable standards.

- b. Examples of potential negative impacts include but are not limited to odor, vibration, light, dust, smoke, noise, impacts on sensitive areas as defined by the Code, and/or disruption of agricultural practices.
- 23. Known or reasonably anticipated detrimental effects of the use are as follows:
 - a. Storm water/Site Development: Site development, construction activities, and continued use of the site during operation can reasonably be anticipated to have a detrimental effect on the surrounding properties due to storm water concerns. The applicant must provide a storm water report prepared by a licensed Engineer detailing how the proposed development will manage rainfall on-site and prevent the off-site discharge of the precipitation from all rainfall events less than or equal to the 80th percentile rainfall even or a predevelopment hydrologic condition, whichever is less. *See condition #1*
 - b. Impacts on Potential Wetland Areas. The proposed storage yard use as identified within the West Edge CUP Letter of Intent (Attachment A) and Wetlands Study Area memo (Attachment B) is initially proposed to occur on upland (non-wetland) areas identified within the subject properties, as the first phase of the proposed storage yard use. The storage yard use is not proposed to occur within wetland study areas until a delineation study has been completed for these specific areas, and approval granted by the U.S. Army Corps of Engineers. *See Condition 4*

G. Public Notice and Comment—§17.02.040 Notice of Meetings

- 24. Public notice was posted online to the Utah Public Notice Website on September 24, 2021.
- 25. Notices were posted in three public places on September 24, 2021.
- 26. Notices were mailed to all property owners within 300 feet of the subject property on September 24, 2021.
- 27. At this time staff has not received written public comment regarding this proposal.

Conditions

These conditions are based on the Cache County Land Use Ordinance and on the findings of fact as noted herein:

- 1. Prior to recording the permit, the applicant must submit a storm water report prepared by a licensed engineer detailing how the proposed development will manage rainfall on-site and prevent the off-site discharge of the precipitation from all rainfall events less than or equal to the 80th percentile rainfall event or a predevelopment hydrologic condition, whichever is less. The report must be submitted to the Public Works Department for review and approval from the County Engineer. Written confirmation from the Public Works Department confirming compliance with this requirement must be provided to the Development Services Department. comply with all regulations of the State and Federal governments for construction, reclamation, et cetera, and submit a copy of any required permitting to the Development Services Office. *(See F-24.a)*
- 2. The only protective screening required is silt fencing or earth berms to prevent silt, debris or sediment runoff from material storage on upland areas onto adjacent properties, or onto wetland study areas. *(See A-2.c.iii)*
- 3. On the completion of the wetlands delineation study, the applicant must provide engineering site improvement plans prepared by a licensed professional and submitted to Cache County Public Works for review and approval.

- a. Site improvement plans must include, but not limited to; site plan, site grading, site drainage, and site details. *(See E20)*
- b. Plans must be provided with a phasing plan to show the timing of required road right-of-way dedication, road improvements and site improvements relative to the delineation of wetlands within the potential wetland areas. A copy of U.S. Army Corps of Engineer approval must be provided to the Cache County Development Services.
- c. The site improvement plan must be submitted showing the specific storage yard areas within upland areas, and applicable setbacks to adjacent properties, and access. *(See F-24.b)*
- d. Site Improvement Plans must include right-of-way dedications and roadway improvement plans for 2200 West along the north boundary of Parcel 04-075-0002 and for 1200 West between the northern boundary of parcel 0002 and the south boundary of parcel 0003, in coordination with Cache County Engineering, Logan City Public Works, and any applicable utility entities. *(See E20)*
- e. No storage of material or any disturbance is allowed on any of the identified wetland study areas. Limited use of the property as described in Phase 1 is permitted, and additional use of the property as described in the remaining phases may only occur after the wetland delineation study has been completed, approval is granted by the U.S. Army Corps of Engineers, and all road improvements are substantially completed. *(See F-24.b)*

Conclusions

Based on the findings of fact and conditions noted herein, the West Edge CUP is hereby approved as follows:

1. It has been reviewed by the Planning Commission in conformance with, and meets the requirements of, the Cache County Land Use Ordinance with the listed staff findings and conditions of approval, and;
2. As per §17.02.060, Establishment of Land Use Authority, the Planning Commission is authorized to act as the Land Use Authority for this CUP request.

Staff Report: One Forty Two Subdivision 1st Amendment

1 September 2022

This staff report is an analysis of the application based on adopted county documents, standard county development practices, and available information. The report is to be used to review and consider the merits of the application. Additional information may be provided that supplements or amends this staff report.

Agent: Dennis Gene & Kerry Dayley

Parcel ID#: 13-063-0009

Staff Determination: Approval with conditions

Type of Action: Administrative

Land Use Authority: Planning Commission

Project Location

Reviewed by Angie Zetterquist

Project Address:

7550 North Highway 142, near Newton
near Wellsville

Current Zoning:

Agricultural (A10)

Acres: 47.4

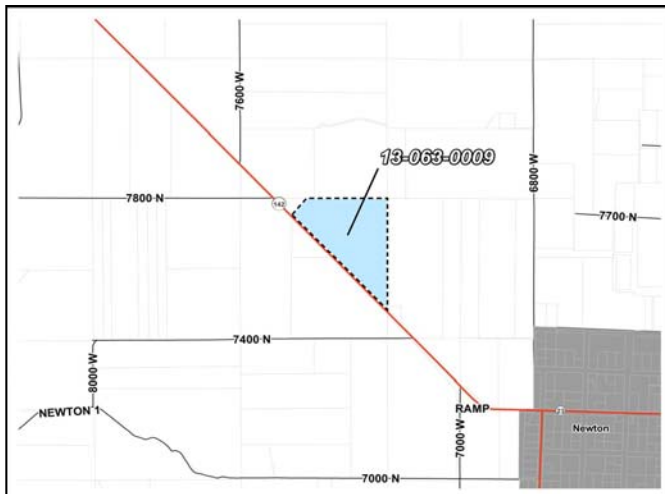
Surrounding Uses:

North – Agricultural

South – Agricultural/Residential

East – Agricultural

West – Agricultural/Residential



Findings of Fact

A. Request description

1. The One Forty Two Subdivision 1st Amendment is a request to create a new buildable lot and amend the boundaries of the agricultural remainder in an existing 1-lot subdivision with an agricultural remainder in the Agricultural (A10) Zone (Attachment A).
 - a. Lot 1 will remain at 2.00 acres;
 - b. Proposed Lot 2 will be 2.15 acres; and
 - c. The agricultural remainder will decrease from 47.44 acres to 45.3 acres.

B. Parcel legality

2. The subject properties are legal as they are in the same size and configuration as approved as part of the One Forty Two Subdivision as approved and recorded in September 2017.

C. Authority

3. §17.02.030 [E] Authority for Land Use Actions – The Planning Commission is authorized to act as the Land Use Authority for subdivision amendments. *See conclusion #1.*

D. Culinary water, septic system, and storm water

4. §16.04.080 [A] Water Requirements – Evidence of an approved domestic culinary water right has been provided for the proposed Lot 2 (Water Right #25-11773/a47987).
5. §16.04.080 [B] Sewage Requirements – The applicant has provided a copy of an approved septic permit for the proposed Lot 2 from the Bear River Health Department confirming the feasibility of a septic system on the new lot.
6. §16.04.070 Storm Drainage Requirements – Compliance with current State and local stormwater standards must be met. Prior to recording the plat, the application must submit a storm water report prepared by a licensed engineer detailing how the proposed development will manage rainfall on-site and off-site discharge to the Public Works Department for review and approval. Construction of any required infrastructure is required prior to recording the plat. Stormwater structures must be shown on the plat with a note added requiring the stormwater structures to be maintained by the lot owners. A Land Disturbance Permit is required for any future development. *See condition #1 & #2*

E. Access

7. §16.02.010 Standards and Lot Size – All subdivisions must meet the minimum lot and development standards as outlined in each base zone of the Cache County Zoning Ordinance and within this title.
8. Table 17.10.040 Site Development Standards – Minimum lot frontage required in the A10 Zone is 90 feet.
9. §17.07.040 General Definitions – Lot/Parcel Frontage: that portion of a development site that abuts a public or private roadway. For the purposes of determining setback requirements on corner lots, all sides of a lot adjacent to a roadway shall be considered frontage
10. §16.04.040 [A] Roads – All roads must be designed and constructed in accordance with Title 12 of the County Code.
11. §12.02.010 Roadway Standards – Requirements for roadway improvement are provided in the current Manual of Roadway Design and Construction Standards (Road Manual).
12. §16.04.080 [E] Roads and Access – A basic road review is required and must consider:
 - a. The layout of proposed roads;
 - b. An analysis of existing roadway compliance with the Road Manual requirements;
 - c. Existing maintenance;
 - d. Any additional impacts to the proposed development access roads.
13. A basic review of the access to the subdivision identifies the following:
 - a. Access to the One Forty Two Subdivision is from Highway 142, a UDOT facility.
 - b. Hwy 142:
 - i. Is an existing UDOT facility that provides access to the general public and is the main corridor from Newton to Clarkston.
 - ii. Is classified as a Major Collector.
 - iii. Is maintained year round.

- iv. The applicant has been working with UDOT on a Variance Request Form (Attachment B) for access to Lot 2. A copy of the approved Variance Request Form must be provided to the Development Services Office prior to recording the plat. **Condition #3**

F. Service Provision

14. §16.04.080 [C] Fire Control – The County Fire District visited the subject property and found the access road meets fire code standards. Any future development on the property must be reevaluated and may require improvements based on the location of the proposed access and development. Water supply for fire protection will be provided by the Newton Fire Department.
15. §16.04.080 [F] Solid Waste Disposal – Logan City Environmental provides collection service in this area. Residential carts will need to be placed on the east side of Hwy 142 for collection. Sufficient shoulder space must be provided along the road for all refuse and recycling containers to be placed 3-to-4 feet apart and be far enough off the road so as not to interfere with passing traffic.

16. Sensitive Areas

17. §17.08.040 General Definitions, Sensitive Area; §17.18 Sensitive Area
 - a. According to the GIS data, there is an irrigation lateral along the eastern boundary of the subdivision. Additional review and setbacks may be required for future development. **See condition #4**

G. Public Notice and Comment—§17.02.040 Notice of Meetings

18. Public notice was posted online to the Utah Public Notice Website on 22 August 2022.
19. Notices were posted in three public places on 22 August 2022.
20. Notices were mailed to all property owners within 300 feet of the subject property on 22 August 2022.
21. At this time, staff has received no written public comment regarding this proposal.

Conditions

Based on the Cache County Subdivision and Land Use Ordinances, Road Manual, and on the findings of fact as noted herein, staff recommends the following conditions:

1. Prior to recording the plat, a storm water report prepared by a licensed engineer must be submitted to and approved by the Public Works Department. Any storm water infrastructure required by the stormwater report must be constructed prior to recording the plat. The applicant must provide copies of all written confirmation, including permits and approvals, to the Development Services Department. **(See D-6)**
2. A Land Disturbance Permit is required for land disturbance related to future development. **(See D-6)**
3. Prior to recording the plat, the applicant must provide a copy of the approved Variance Request Form from UDOT for access off of Highway 142 and for a refuse container area and a mailbox, if applicable. Any required improvements must be completed prior to recording the plat. Copies of all permits, approvals, and certificates of completion from UDOT must be provided to the Development Services Department. **(See E-13-iv)**
4. Prior to issuance of a zoning clearance and depending on the location of future development, additional analysis and review may be required for any sensitive areas present on the subject property. **(See F-17-a)**

Conclusions

Based on the findings of fact and conditions noted herein, staff recommends approval of the One Forty Two Subdivision 1st Amendment as:

1. It has been reviewed by the Planning Commission in conformance with, and meets the requirements of, the Cache County Subdivision and Land Use Ordinances.

One Forty Two Subdivision Amendment No.1

(Amending the Agricultural Remainder and Adding Lot 2)
A Part of the Northeast Quarter of Section 13, Township 13 North,
Range 2 West, Salt Lake Base & Meridian, Cache County, Utah
July 2022

LEGEND	
---	Subdivision Boundary Line
---	Lot Line
---	Adjoining property Line
---	Easement Line
---	Field Separation Line
---	Existing Overhead Power
---	Existing Communications
---	Existing Irrigation Line
---	Existing Gas Line
---	Existing Fence Line
+	Section Corner
+	Found Survey Point
+	Set 5/8" by 24" Rebar With Cap

POWER NOTE:

- Pursuant to Utah Code Ann. 54-3-27 this plat conveys to the owner(s) or operators of utility facilities a public utility easement along with all the rights and duties described therein.
- Pursuant to Utah Code Ann. 17-27a-603(4)(c)(ii) Rocky Mountain Power accepts delivery of the P.U.E. as described in this plat and approves this plat solely for the purpose of confirming that the plat contains public utility easements and approximates the location of the public utility easements, but does not warrant their precise location. Rocky Mountain Power may require other easements in order to serve this development. This approval does not affect any right that Rocky Mountain Power has under:
 - a recorded easement or right-of-way;
 - the law applicable to prescriptive rights;
 - title 54, chapter 6a, damage to underground utility facilities or
 - any other provision of law.

ROCKY MOUNTAIN POWER

Approved by the Rocky Mountain Power, this day of _____, A.D., 20__.

By: _____
Title: _____



VICINITY MAP - NO SCALE

GENERAL NOTES:

- Culinary Water Note:**
Culinary Water Cache County has not determined the availability or adequacy of culinary water to any of the lots identified. All owners are advised of the requirements to obtain an approved culinary water source and comply with all other requirements for the issuance of a zoning clearance, prior to the issuance of a building permit.
- Storm Water Drainage Note:**
Storm Water Drainage: Compliance with the standards of the Cache County Manual of Roadway Design and Construction Standards and State of Utah storm water permitting are required. This includes, but is not limited to, any increased level of storm water drainage from any portion of any lot or remainder parcel of this subdivision to any adjacent properties, ditches, canals, or waterways, or the alteration of any existing, historic, or natural drainage without prior written authorization provided by the affected party or entity (may include but is not limited to: adjacent property owner(s), ditch or canal company, Cache County, or the State Water Engineer's Office.)
- Setback Lines for Primary Buildings are:**
12.00' on Side Yard; 30.00' on Front Yard; 30.00' on Rear Yard
- Agricultural Uses:** Current and future property owners must be aware that they will be subject to the sights, sounds, and smells associated with agricultural activities which are permitted uses in the Agricultural Zone.

COUNTY ATTORNEY APPROVAL

I certify that I have examined this plat and approve this plat as to form as required by State law and County ordinance.

Cache County Attorney _____ Date _____

DEPUTY COUNTY SURVEYOR'S CERTIFICATE

I certify that I have had this plat examined and find that it is correct and in accordance with the information on file in this office; and further, it meets the minimum standards for plats required by county ordinance and state law.

Deputy County Surveyor _____ Date _____

DIRECTOR OF DEVELOPMENT SERVICES

This plat was approved and accepted by the Cache County Director of Development Services this day of _____, 20__.

By: _____ Director _____

BEAR RIVER HEALTH DEPARTMENT APPROVAL

This subdivision described in this plat has been approved by the Bear River Health Department on the day of _____, 20__.

By: _____ Title: _____

SURVEYOR'S CERTIFICATE

I, Clinton G. Hansen, do hereby certify that I am a Registered Land Surveyor, and that I hold certificate No. 7881387, as prescribed under the laws of the State of Utah, I further certify that by authority of the owners I have made a survey of the tract of land shown on this plat and described below, and have subdivided said tract of land hereafter to be known as One Forty Two Subdivision Amendment No.1 and the same had been correctly surveyed and all streets are the dimensions shown.

Clinton G. Hansen
P.L.S. No. 7881387



AMENDMENT BOUNDARY

A Part of the Northeast Quarter of Section 13, Township 13 North, Range 2 West, Salt Lake Base & Meridian
Beginning at the Northeast Corner of said Section and RUNNING THENCE South 00°01'36" East 2126.73 Feet (South 2064.20 Feet by Record) Along the East Line of said Section to the intersection with the Northeastly Right-of-Way line of State Highway 142; Thence Along said Right-of-Way Line the Following Two (2) Courses: (1) North 43°37'45" West 1768.49 Feet; (2) North 43°33'19" West 757.20 Feet; Thence North 39°58'40" East 407.31 Feet to the intersection with the North Line of said Section; Thence North 69°59'21" East 1465.54 Feet (East by Record) Along said North Line to the Point of Beginning, Containing 47.436 Acres.

OWNER'S DEDICATION

Know all men by these presents that we the undersigned owners of the tract of land (Parcel 13-063-0009) depicted and described hereon, having caused the same to be subdivided into lots and streets (as per plat), the whole to be hereinafter known as the One Forty Two Subdivision Amendment No.1, Further we grant an easement to the Newton Water User's Association, as dimensioned hereon, for access, maintenance, repair, upgrades, etc. to their pressurized Irrigation System along the East line of the Agricultural Remainder Parcel, Further we grant an easement to Rocky Mountain Power, as dimensioned hereon, for access, maintenance, repair, upgrades, etc. to their Transmission Line that runs Along the North Line of the Subdivision, We Hereby set our Signatures

Parcel 13-063-0009, JOHN & CAROL LARSEN PROPERTIES LLC

By: _____
John P. Larsen

LLC ACKNOWLEDGMENT

State of Utah
County of _____
On this _____ day of _____, 20__.

John P. Larsen, Managing Member for the John & Carol Larsen Properties, LLC, personally appeared before me, the undersigned notary public in and for said county, in the state of Utah, the signer of the attached owners dedication, who duly acknowledged to me he signed it freely and voluntarily and for the purpose therein mentioned on behalf of said company.

Notary Public Signature

Notary Public Commissioned in Utah
(Print Name)

Commission Number - Expires _____

COUNTY RECORDER

State of Utah
County of Cache

This plat has been duly acknowledged, certified, and approved and may lawfully be recorded in Cache County, Utah.

Filed and Recorded:
Filing No.: _____
Date: _____
Time: _____
Book: _____
Page: _____
Request of: _____

Cache County Recorder



22-215 - COU - 7/19/22 - Rev. 0

Attachment A



Variance Request Form



INTERNAL UDOT USE ONLY

OLP Application ID No:	120934	Project Name:	Dennis & Kerry Dayley- Lot #2 Access
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Access-related variances are governed by Utah Administrative Code R930-6-9. A variance may be considered for any design standard of this rule that is not applicable or feasible given the proposed physical and operational characteristics of the site. Applicants seeking a variance for these design standards must submit a thoroughly detailed variance request using this form.

The applicant must clearly demonstrate the variance request meets minimum acceptable engineering, operation, and safety standards. The applicant must also clearly demonstrate the variance is not detrimental to the health, welfare, and safety of the public.

INSTRUCTIONS: Complete all fields below and submit with a complete application. Additional sheets may be attached, however a summary of your responses must be included in the spaces provided below. Simply stating "see attached" is considered insufficient information.

PROPERTY OWNER INFORMATION		APPLICANT INFORMATION	
Name:	John & Carol Larsen	Name:	Dennis & Kerry Dayley
Mailing Address:	PO Box 52	Mailing Address:	PO Box 1
City, State, Zip:	Newton, Ut. 84327-0052	City, State, Zip:	Newton, UT 84327-0001
Email:		Email:	dgdayley@digis.net
Phone:	435-563-5747	Phone:	435-881-4020
PROPOSED ACCESS INFORMATION			
Physical Address:	7550 N. Hwy 142	Parcel Number:	13-063-0009
State Route ID:	SR 142	Milepost Marker:	0.76
Latitude (decimal degrees)	41.868141	Longitude (decimal degrees)	-112.010163
Access Width:	30'	Access Use Type:	Select One
PRE-APPLICATION COORDINATION MEETING INFORMATION			
Has a pre-application coordination meeting been held with the appropriate Region?			
Yes:	<input checked="" type="checkbox"/>	Meeting Date:	2021-11-9
No:	<input type="checkbox"/>		
VARIANCE REQUEST OVERVIEW			
Describe why this variance is being requested:			
Request an access at the far north end of the corner of the property. This is to be considered a temporary access as well as a being a shared access with the existing farmland that will remain under cultivation. The edge of the temporary access will be 350 ft from the south property line. It will be constructed as per UDOT regulations and guidelines.			
VARIANCE JUSTIFICATION (1)			
Describe how the applicant has considered all other feasible alternatives to provide reasonable alternative access to the property or development and demonstrate that better alternatives in terms of highway operations are not feasible or do not exist:			
It was discussed during the UDOT Pre-Application Permit Meeting to have the access as a shared use driveway on the property line. The owner pointed out that the automatic pivot irrigation end sprayer will be even with the property line. We moved the access back away from the pivot to give the driveway a buffer from the end sprayer on the pivot.			

VARIANCE JUSTIFICATION (2)

Describe how the applicant has considered access through a shared use driveway or access point with an adjacent land use and such a shared use access is not feasible:

When and if the adjacent farmland is developed we would remove the temporary access and modify our driveway to meet the new required shared access.

Currently the landowner does not have a future plan to subdivide the remaining farmland.

VARIANCE JUSTIFICATION (3)

Describe how the applicant is voluntarily providing on-site or off-site mitigation efforts that might offset the negative impacts of approving an access that does not meet the provisions of the rule. Examples, may include, but are not limited to: installing acceleration/deceleration or turn lanes, installing raised median barriers, or other devices that physically restrict turning movements, or the consolidation of existing access connections.

We are working with the current owner to make sure they are willing to use the new access for their farming activities. They still want to use the easment along the east side to access the ditch and buried irrigation pipe. Use of the existing access will be minimal once the highway access is constructed.

VARIANCE JUSTIFICATION (4)

Describe how the applicant has considered and demonstrated trip reduction strategies that allow the access to properly function without creating a negative impact to the highway:

We measured the property and looked at the where the utilities will have to go and made the best decision as to where to put the access off the highway. There should be adequate clearance to the property lines and should have a negative impact to the highway.

TIS waved due to being a single family home that will not cause significant impact to the highway operations.

VARIANCE JUSTIFICATION (5)

Describe the traffic engineering or other studies the applicant has provided to determine the access will not degrade the efficient flow of traffic on the highway in terms of safety, capacity, travel speed, and other functional features of the highway.

Currently the existing access has a clear unobstructed view for at least a half mile in either direction on Highway SR 142. It would not change any traffic flow coming from Newton or from Clarkston.

TIS waved due to being a single family home that will not cause significant impact to the highway operations.

LIST OF ATTACHED DOCUMENTS

In the spaces provided below please list each document being attached in support of this variance request.

#	Description	#	Description	#	Description
1	Proposed Plot Plan	5		9	
2		6		10	
3		7		11	
4		8		12	

APPLICANT/OWNER CERTIFICATION AND ACKNOWLEDGEMENT

The applicant and owner declare under the penalty of perjury, and any other applicable state or federal law, that all information provided on this form and submitted attachments are true, factual, and accurate. The applicant and owner also hereby acknowledge any false or misleading information contained herein is grounds for variance denial and/or permit revocation.

Owner Name (Printed):	John P Larsen	Sign Name:	John P Larsen	Date:	5/10/2022
Applicant Name (Printed):	Dennis Gene Dayley	Sign Name:	Dennis Gene Dayley	Date:	5/10/2022

INTERNAL UDOT USE ONLY

Pursuant to Utah Administrative Code R930-6-9(2)(b), the Department shall not approve variances that, in the Department's determination, pose hazards to public mobility, health, safety, and welfare. The Department shall not approve variances for procedural requirements. The department shall review the variance request for consistency with the purposes of this rule.

Pursuant to Utah Administrative Code R930-6-9(2)(d), the Department shall include in its files documentation of reasons for approving or denying a variance request. This form is established, in part, to fulfill this legal requirement.

Pursuant to Utah Administrative Code R930-6-9(2)(e), an approved access or encroachment permit may stipulate conditions and terms for the expiration of the permit when the necessity for the variance no longer exists. It may also require the permittee to improve, modify, eliminate, or correct the condition responsible for the variance when it is evident that the justification for the variance is no longer valid. Such stipulations and requirements shall be stated in the approved permit.

REGION PERMITTING OPERATIONS OFFICE RECOMMENDATION

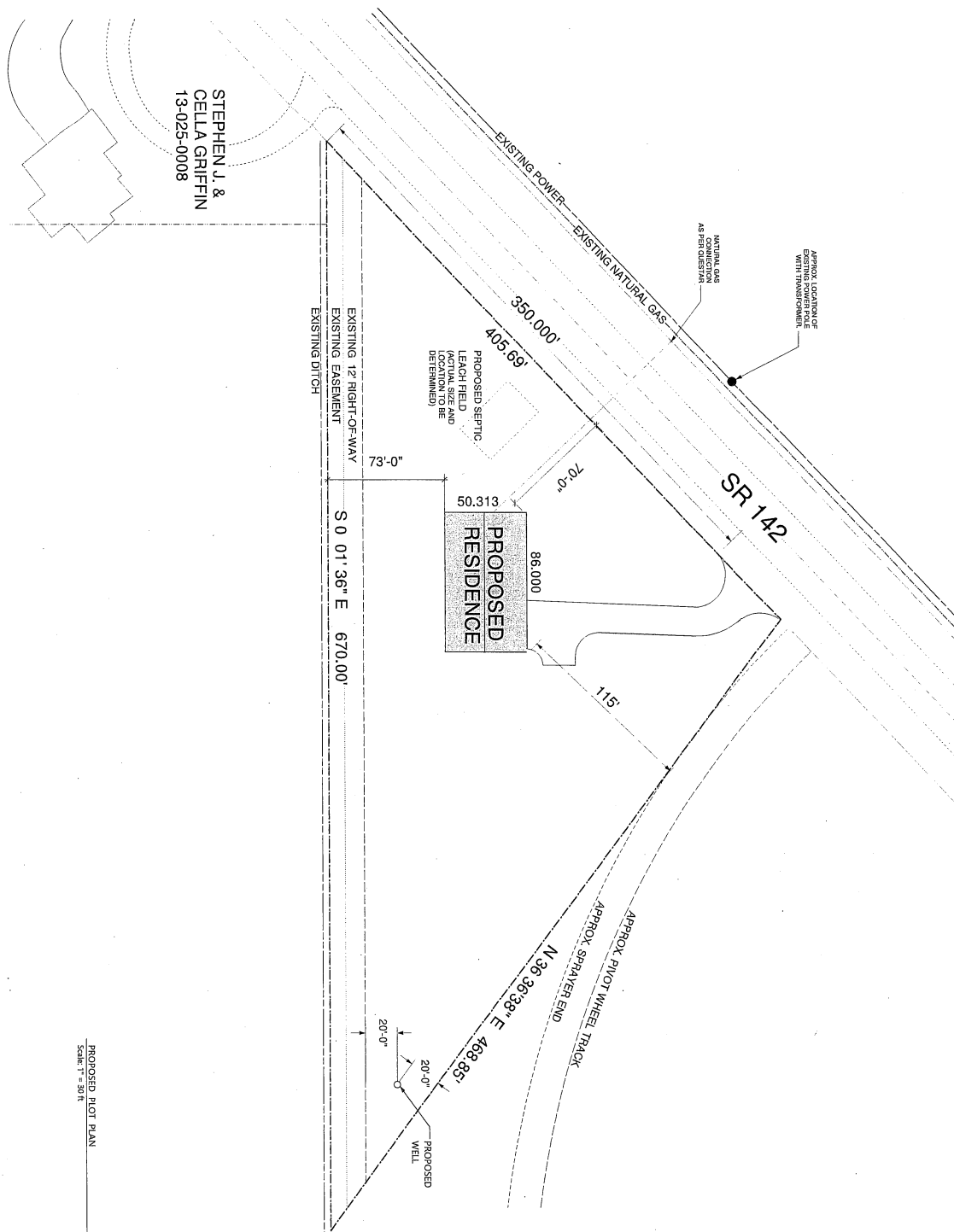
Basis for recommendation:

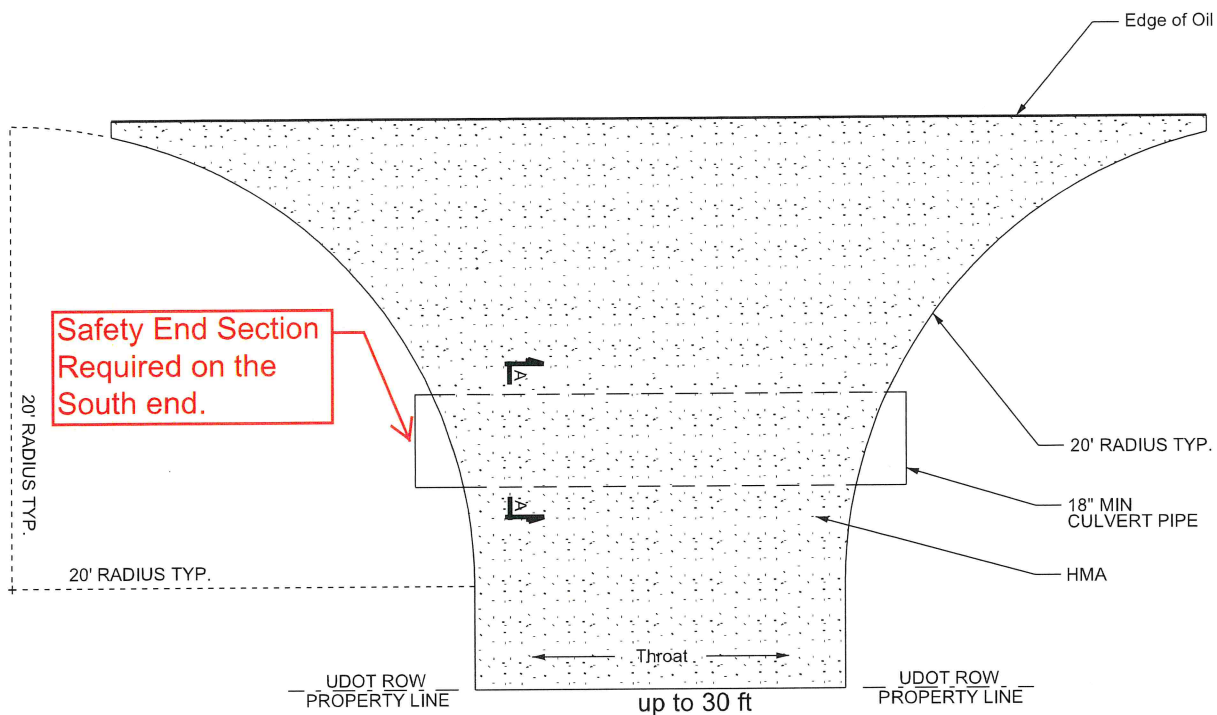
RECOMMENDED FOR:**APPROVAL** ☐**DENIAL** ☐

Name (Printed):		Sign Name:		Date:	
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REGION ENGINEER FINAL DETERMINATION**APPROVED** ☐**DENIED** ☐

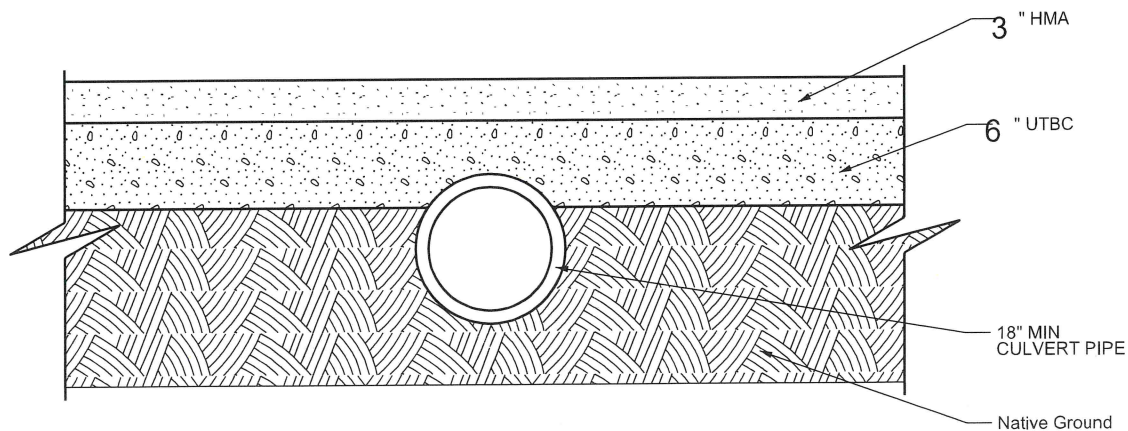
Name (Printed):		Sign Name:		Date:	
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NOTE: End Section required where traffic is closest to the culvert to meet grading requirements.

CULVERT PIPE DETAIL



Section AA

NOTE: HMA may be substituted for rolled rotomill tailings if desired. Owner is responsible for all maintenance of the culvert and asphalt section.

NOTES:
1. PLACE CULVERT IN EXISTING FLOW LINE

DGN File: IP_PWP-00297054\Detail_Residential_Culvert_Crossing.dgn

PIN:

27-SEP-2017

PIN:
PROJECT NO.

CULVERT DETAIL

SHEET NO.

Staff Report: Lee Nelson Minor Subdivision 1st Amend.

1 September 2022

This staff report is an analysis of the application based on adopted county documents, standard county development practices, and available information. The report is to be used to review and consider the merits of the application. Additional information may be provided that supplements or amends this staff report.

Agent: Zan Summers

Parcel ID#: 16-035-0004, -0014, -0025

Staff Determination: Approval with conditions

Type of Action: Administrative

Land Use Authority: Planning Commission

Project Location

Reviewed by Angie Zetterquist

Project Address:

10375 South Highway 165

Avon

Current Zoning:

Agricultural (A10)

Acres: 41.15

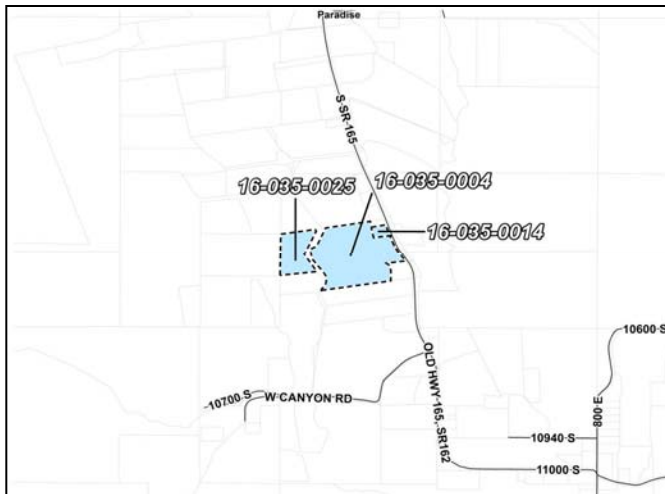
Surrounding Uses:

North – Agricultural/Residential

South –Agricultural/Residential

East – Agricultural/Residential

West – Agricultural/Residential



Findings of Fact

A. Request description

1. The Lee Nelson Minor Subdivision 1st Amendment is a request to expand the subdivision to include parcel #16-035-0025 as part of the agricultural remainder and to create a new buildable lot in an existing 2-lot subdivision with an agricultural remainder in the Agricultural (A10) Zone.
 - a. Lot 1 will not change;
 - b. Lot 2 will be slightly amended changing from 1.13 acres to 1.10 acres;
 - c. Proposed Lot 3 will be 10.0 acres; and
 - d. The agricultural remainder will increase from 20.6 acres to 30.05 acres.

B. Parcel legality

2. The subject properties are legal as they are in the same size and configuration as approved as part of the Lee Nelson Minor Subdivision recorded in November 2001. There is an existing Conditional Use Permit (CUP) on parcel #16-040-0007, located immediately west of the proposed subdivision amendment, for a gravel pit. One of the conditions of approval for that CUP requires that the trucks access the private road, 10500 South, through the subdivision due to a lack of clear zones from the private road to Highway 165. Any future improvements in the proposed subdivision must maintain access for the gravel pit per the CUP. *See condition #1*

C. Authority

3. §17.02.030 [E] Authority for Land Use Actions – The Planning Commission is authorized to act as the Land Use Authority for subdivision amendments. *See conclusion #1.*

D. Culinary water, septic system, and storm water

4. §16.04.080 [A] Water Requirements – Evidence of an approved domestic culinary water right has been provided for the proposed Lot 3 (Water Right #25-1406). Prior to submitting a Zoning Clearance for future development on Lot 3, the water right must be transferred into the property owner's name for Lot 3. *See condition #2*
5. §16.04.080 [B] Sewage Requirements – The applicant has provided a copy of an approved septic permit for the proposed Lot 3 from the Bear River Health Department confirming the feasibility of a septic system on the new lot.
6. §16.04.070 Storm Drainage Requirements – Compliance with current State and local stormwater standards must be met. Prior to recording the plat, the application must submit a storm water report prepared by a licensed engineer detailing how the proposed development will manage rainfall on-site and off-site discharge to the Public Works Department for review and approval. Construction of any required infrastructure is required prior to recording the plat. Stormwater structures must be shown on the plat with a note added requiring the stormwater structures to be maintained by the lot owners. A Land Disturbance Permit is required for any future development. *See condition #3 & #4*

E. Access

7. §16.02.010 Standards and Lot Size – All subdivisions must meet the minimum lot and development standards as outlined in each base zone of the Cache County Zoning Ordinance and within this title.
8. Table 17.10.040 Site Development Standards – Minimum lot frontage required in the A10 Zone is 90 feet.
9. §17.07.040 General Definitions – Lot/Parcel Frontage: that portion of a development site that abuts a public or private roadway. For the purposes of determining setback requirements on corner lots, all sides of a lot adjacent to a roadway shall be considered frontage
10. §16.04.040 [A] Roads – All roads must be designed and constructed in accordance with Title 12 of the County Code.
11. §12.02.010 Roadway Standards – Requirements for roadway improvement are provided in the current Manual of Roadway Design and Construction Standards (Road Manual).
12. §16.04.080 [E] Roads and Access – A basic road review is required and must consider:
 - a. The layout of proposed roads;
 - b. An analysis of existing roadway compliance with the Road Manual requirements;
 - c. Existing maintenance;
 - d. Any additional impacts to the proposed development access roads.

13. The Road Manual specifies the following:

- a. §2.1 Roadway Functional Classification – Major Collector (MC) – Major Collector roads serve large towns and other traffic generators of equivalent inter-county importance, such as schools, shipping points, and county parks, which are not directly served by minor arterial roads.
- b. Table B-6 Typical Cross Section Minimum Standards: Major Collector roads must meet the minimum standard of an 80-foot right-of-way, two 12-foot wide paved travel lanes with 8-foot wide shoulders (4 feet paved and 4 feet gravel): 14-inches depth of granular borrow, a 6-inches depth of untreated base course, and 3 inches of bituminous surface course (asphalt).
- c. Table B-8 Typical Cross Section Structural Values: The minimum structural composition for major collector roads requires 14” depth of granular borrow, 6” depth of road base, and 4” depth of asphalt.
- d. Table 5.1 – Cache County Access Management Standards – Requires a minimum 200-foot spacing between residential/farm accesses along a Collector road.

14. A basic review of the access to the subdivision identifies the following:

- a. Access to the Lee Nelson Minor Subdivision is from Highway 165, a county road. There is also a private road on the south boundary of the subdivision, 10500 South, that provides access to a gravel pit, agricultural uses, and some single-family dwellings to the west of the subdivision.
- b. Highway 165:
 - i. Is an old State road that is now a County facility and is considered a regionally significant road.
 - ii. It is the main corridor in the south end of the valley providing access to local communities, residential uses, commercial properties, and agricultural lands.
 - iii. Is classified as a Major Collector.
 - iv. Consists of a 24-foot wide paved surface with 1-foot of paved shoulders and 1.5 feet of gravel shoulders.
 - v. Is maintained year round.
 - vi. Is considered substandard as to right-of-way width, paved and gravel shoulder width, and clear zone.
 - vii. Improvements are required to the shoulder of Hwy 165 along the frontage of proposed Lot 3 to bring it into compliance with a Major Local Road standard. *See condition #5*
 - viii. Prior to future development of Lot 3, the driveway access must be improved to current standards. *See condition #6*
 - ix. Any future development in the subdivision must meet the setback requirements as measured from the future 80-foot right-of-way for a Collector Road and not the existing 66-foot ROW. A note must be added to the subdivision plat regarding the additional setback requirement. *See condition #7*

F. Service Provision

- 15. §16.04.080 [C] Fire Control – The County Fire District visited the subject property and found the access road meets fire code standards. Any future development on the property must be reevaluated and may require improvements based on the location of the proposed access and development. Water supply for fire protection will be provided by the Paradise Fire Department.
- 16. §16.04.080 [F] Solid Waste Disposal – Logan City Environmental provides collection service in this area. Residential carts will need to be placed on the west side of Hwy 165 for collection. Sufficient shoulder space must be provided along the side of this narrow road for all refuse and

recycling containers to be placed 3-to-4 feet apart and be far enough off the road so as not to interfere with passing traffic.

G. Sensitive Areas

17. §17.08.040 General Definitions, Sensitive Area; §17.18 Sensitive Area

- a. According to the GIS data, there are areas of the subdivision located in the FEMA floodplain as well as areas with potential wetlands and steep and moderate slopes. Additional review and setbacks may be required for future development. *See condition #8*

H. Public Notice and Comment—§17.02.040 Notice of Meetings

18. Public notice was posted online to the Utah Public Notice Website on 22 August 2022.

19. Notices were posted in three public places on 22 August 2022.

20. Notices were mailed to all property owners within 300 feet of the subject property on 22 August 2022.

21. At this time, staff has received no written public comment regarding this proposal.

Conditions

Based on the Cache County Subdivision and Land Use Ordinances, Road Manual, and on the findings of fact as noted herein, staff recommends the following conditions:

1. Future development on proposed Lot 3 cannot be located within or interfere with the access road for the gravel pit on parcel #16-040-0007 that passes through Lot 3 from Highway 165 to the private road, 10500 South, as required by the Conditional Use Permit conditions of approval for that extraction use. (*See B-2*)
2. Prior to submitting a Zoning Clearance for future development on Lot 3, the approved domestic water right must be transferred into the Lot 3 property owner's name. (*See D-4*)
3. Prior to recording the plat, a storm water report prepared by a licensed engineer must be submitted to and approved by the Public Works Department. Any storm water infrastructure required by the stormwater report must be constructed prior to recording the plat. The applicant must provide copies of all written confirmation, including permits and approvals, to the Development Services Department. (*See D-6*)
4. A Land Disturbance Permit is required for land disturbance related to future development. (*See D-6*)
5. Prior to recording the plat, the shoulder, including any areas required for refuse collection and mail delivery along the frontage of Lot 3 must be improved to a Major Local Road standard. All required improvement plans and construction details must be submitted to the County Public Works Department for their review and approval prior to making the improvements. An encroachment permit is required for any work done in the County right-of-way. Any additional review fees must be paid by the applicant. The applicant must provide copies of all approvals and permits for the required road improvements to the Development Services Department. (*See E-14-b-vii*)
6. Prior to issuance of a Zoning Clearance for future development on Lot 3, the driveway access must be improved to current standards. An Encroachment Permit is required for work done in the County right-of-way. (*See E-14-b-viii*).
7. Any future development must measure the required setbacks from the future 80-foot right-of-way along Highway 165, not the existing 66-foot right-of-way. (*See E-14-b-ix*)
8. Prior to issuance of a zoning clearance and depending on the location of future development, additional analysis and review may be required for any sensitive areas present on the subject property. (*See G-17*)

Conclusions

Based on the findings of fact and conditions noted herein, staff recommends approval of the Lee Nelson Minor Subdivision 1st Amendment as:

1. It has been reviewed by the Planning Commission in conformance with, and meets the requirements of, the Cache County Subdivision and Land Use Ordinances.

Cache Countywide Urban and Rural Area Assessment (8.29.22 DRAFT)

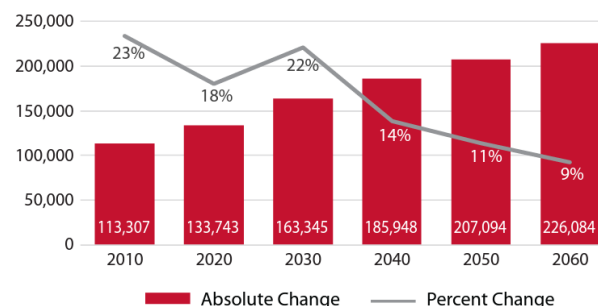
A 'Cost of Services' Analysis of Alternative Development Patterns



Photo Credit: [Mike Johnson](#)

With great access to a thriving economy, education, outdoor recreation, performance arts, and so much more, Cache County continues to grow as a highly desirable area to live and work with great amenities. **The County's 2022 population of around 137,000 is projected to increase to about 186,000 by 2040, adding approximately 48,100 new residents, 22,100 new households, and 43,600 new employees.**

Historic and Projected Growth in Cache County

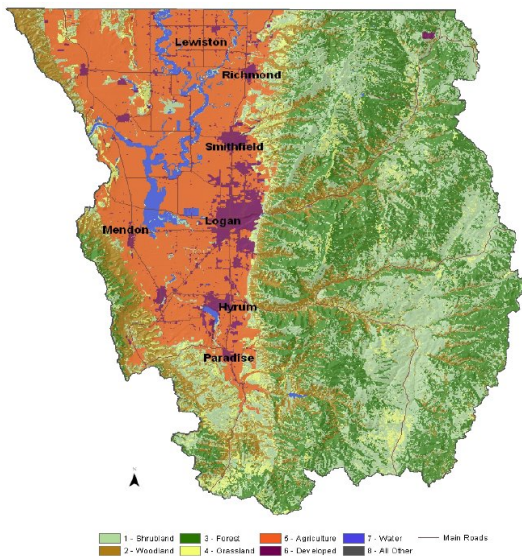


Source: Kem C. Gardner Policy Institute, 2020-2060 Projections

Dramatic housing cost increases are generating strong demand for more diverse housing types, including large and small lot single family, townhomes, condos, and apartments.

For example, the average home price in 2010 was \$172,369 and \$307,228 in 2020 - an increase of 78%, and \$503,734 in May of 2022 - an increase of 185% since 2010. Median income increased 28% from \$47,013 in 2010 to \$60,530 in 2020 (2022 median income futures not available).

The Kem Gardner Policy Institute of the University of Utah estimates that Cache Valley will need 11,600 additional housing units between now and 2030 to accommodate new household growth (Eskic, 2022). The Milken Institute (2022) recently ranked the Logan, Utah-Idaho Metropolitan Statistical Area (MSA) area as the #1 performing small city in the nation. However, they ranked the MSA No. 178 for housing affordability.



The area of focus of this Assessment is the Cache Valley region where existing communities and surrounding unincorporated areas occupy approximately 30% of the County area. The USDA Cache County Resource Assessment Map (left) shows the Cache Valley area as agriculture, water, and developed areas where services are generally more available to support new development. About 70% of the unincorporated area of the County is occupied by less developable Forest Recreation areas that include private, State, and Federal Lands ([Cache County Resource Assessment, USDA](#)).

The purpose of the County's Urban and Rural Area Assessment (URAA, or Assessment) is to explore new policies and zoning tools that could shape more desirable and beneficial growth patterns within the changing Cache Valley area. Key considerations for communities include fiscal and economic impacts, roads and infrastructure demand, water use, emergency services, housing and jobs, open space and agriculture.

Rural Areas Contract as Urban Areas Expand

As with many high-growth areas in the United States, county unincorporated areas become smaller as adjacent cities and towns become larger. This can greatly change the feel and look of an area and be difficult to maintain. Counties are often home to agricultural fields, pastures, open space, or natural terrain. The difference between urban and rural can sometimes be abrupt and other times be a gradual transition from higher to lower densities. The rate at which land uses change from urban to rural becomes important when looking at the cost and impact of building infrastructure such as roads, sewer, water lines, and providing services such as Fire, EMS, and Law Enforcement. The very definition of urban, rural, and high or low densities is debatable based on varying perspectives and is subject to the standards of the local area. There are a variety of factors to consider when planning growth:

- How are current services impacted?
- What new services can be incorporated?
- What environmental impacts does growth cause?

-
- What open space areas and trail corridors could be preserved as land develops?
 - Are current development trends sustainable moving forward?
 - What housing needs are being met?
 - How/what should develop to improve economic development?
 - How to fund improvements to promote growth?

Growth Scenarios To Explore Potential Impacts

This document focuses on three countywide growth scenarios for future growth, and provides a starting point for additional future scenarios to be explored for an individual community, a sub-regional area, or additional countywide analysis. Scenarios allow for the analysis and comparison of different land uses and development densities to understand costs and impacts associated with infrastructure, water use, fiscal and economic impacts, housing choices, and open space preservation. This method of Rural and Urban area assessment supports regional collaboration and provides communities with a comprehensive perspective when making land use decisions.

The projected impacts of each development alternative are calculated through the County's **'Cost of Services Planning Model,' or 'Growth Projection Model' (or 'Model')**. This model was created as part of the General Plan update to quantify the benefits of implementing plan recommendations with a countywide perspective. The following Appendices to this Assessment provide a detailed description of the methodologies used to model the scenarios:

- **Appendix A - Countywide Urban and Rural Area Assessment .**
- **Appendix B - Cost of Services Model.**

Each scenario explores varying growth patterns and densities to accommodate the County's 2040 increase in population, households, and employees. The potential acreage developed for each scenario varies substantially, which in turn changes the amount and cost of infrastructure, utilities, and water use associated with each alternative.

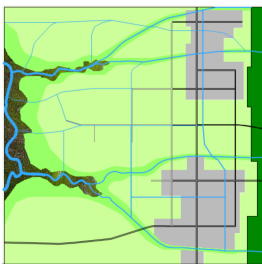
See Section 3. for a listing of land use planning principles, definitions, and statements applicable to the growth scenarios. These statements provide context of the land use authority and zoning tools that could be applied to achieve the desired community benefits.

2. Countywide GROWTH SCENARIOS

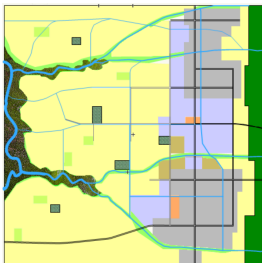
Table 1. Cache County Growth Projections

Source: Kem C. Gardner Policy Institute - 2020 to 2060 Projections

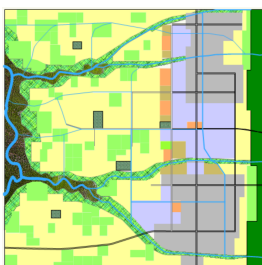
	2022	2040	Increase	
H.H. Population	137,900	186,000	48,100	
Households	43,100	65,200	22,100	
Employees	64,600	88,000	43,600	



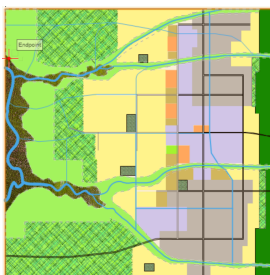
EXISTING CONDITION & SCENARIO IMAGES: The image at left and growth scenario images below represent a hypothetical land use area of approximately 3.8 miles squared (14.5 square miles or 9,268 acres). These images provide a smaller sub-regional perspective of the countywide scenario data included in this assessment. Larger scenario images with a land use legend are provided on pages 6 - 9.



SCENARIO 1. EXPANSIVE GROWTH: Lower density residential growth is shown at an average density of 1.93 units per gross acre (inclusive of right-of-way areas) across the landscape. Single family dwellings (yellow areas) average 3.3 units per acre in the cities and towns, and 0.15 units per acre in the County unincorporated areas. This more expansive growth pattern results in 315 road / utility miles to provide access and services to homes and businesses, and utilizes 356 Gallons per Day (GPD) of water for indoor and outdoor use.



SCENARIO 2. CLUSTERED DEVELOPMENT: Residential growth is shown at an average density of 2.8 units per gross acre, with an emphasis on cluster development to preserve open space for agriculture, trail corridors and sensitive land areas. Single family dwellings average 3.2 units per acre in the cities and towns, and 0.22 units per acre in the County unincorporated areas. This growth pattern results in 238 road / utility miles to provide access and services to homes and businesses, and utilizes 309 Gallons per Day (GPD) of water for indoor and outdoor use.

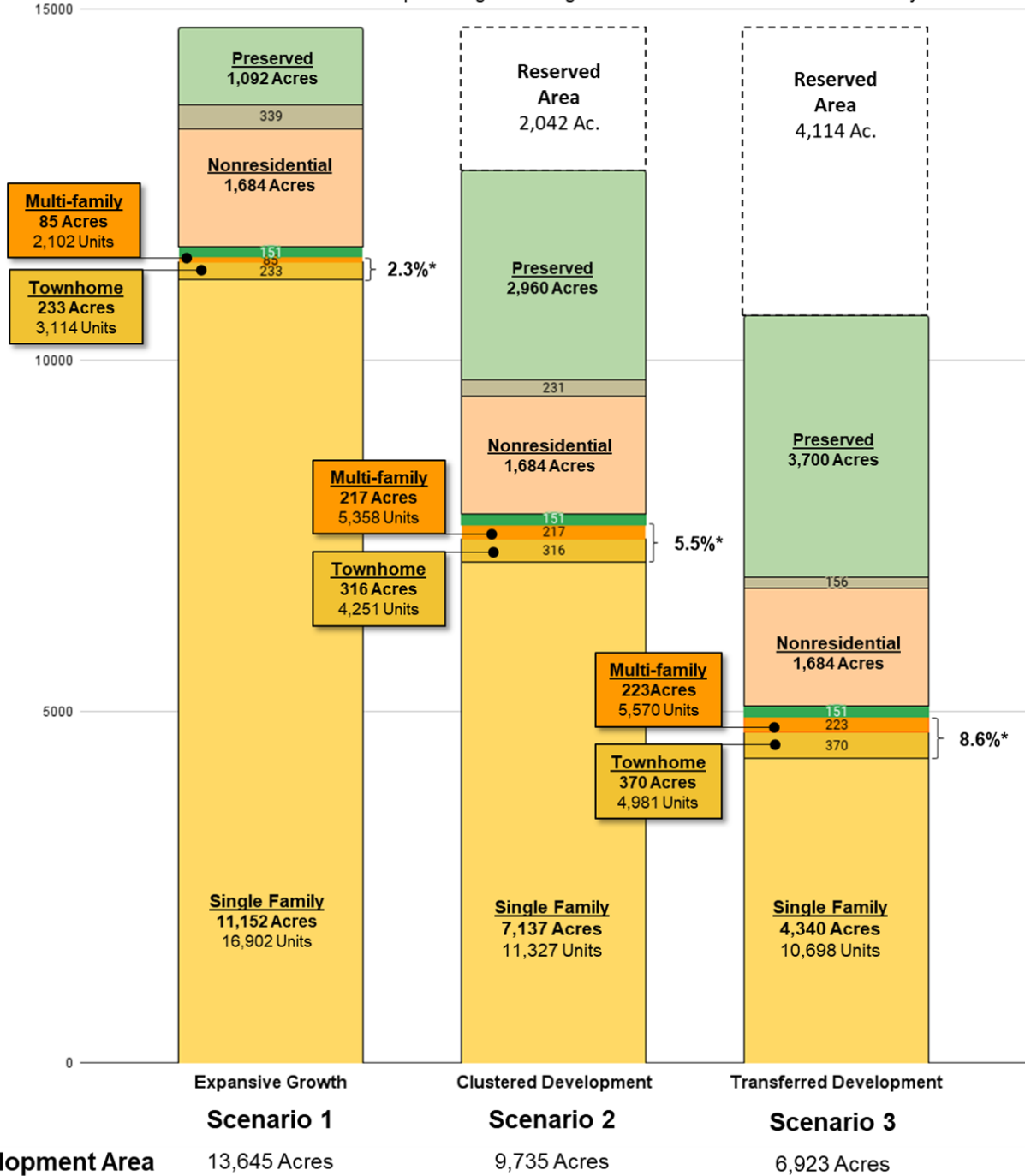


SCENARIO 3. TRANSFERRED DEVELOPMENT: Residential growth is shown at an average density of 4.5 units per gross acre, with an emphasis on contiguous development patterns, preserving agland and sensitive land areas, and reserving land for future development. Single family dwellings average 3.5 units per acre in the cities and towns, and 0.32 units per acre in the County unincorporated areas. This growth pattern results in 201 road / utility miles to provide access and services to homes and businesses, and utilizes 297 Gallons per Day (GPD) of water for indoor and outdoor use.

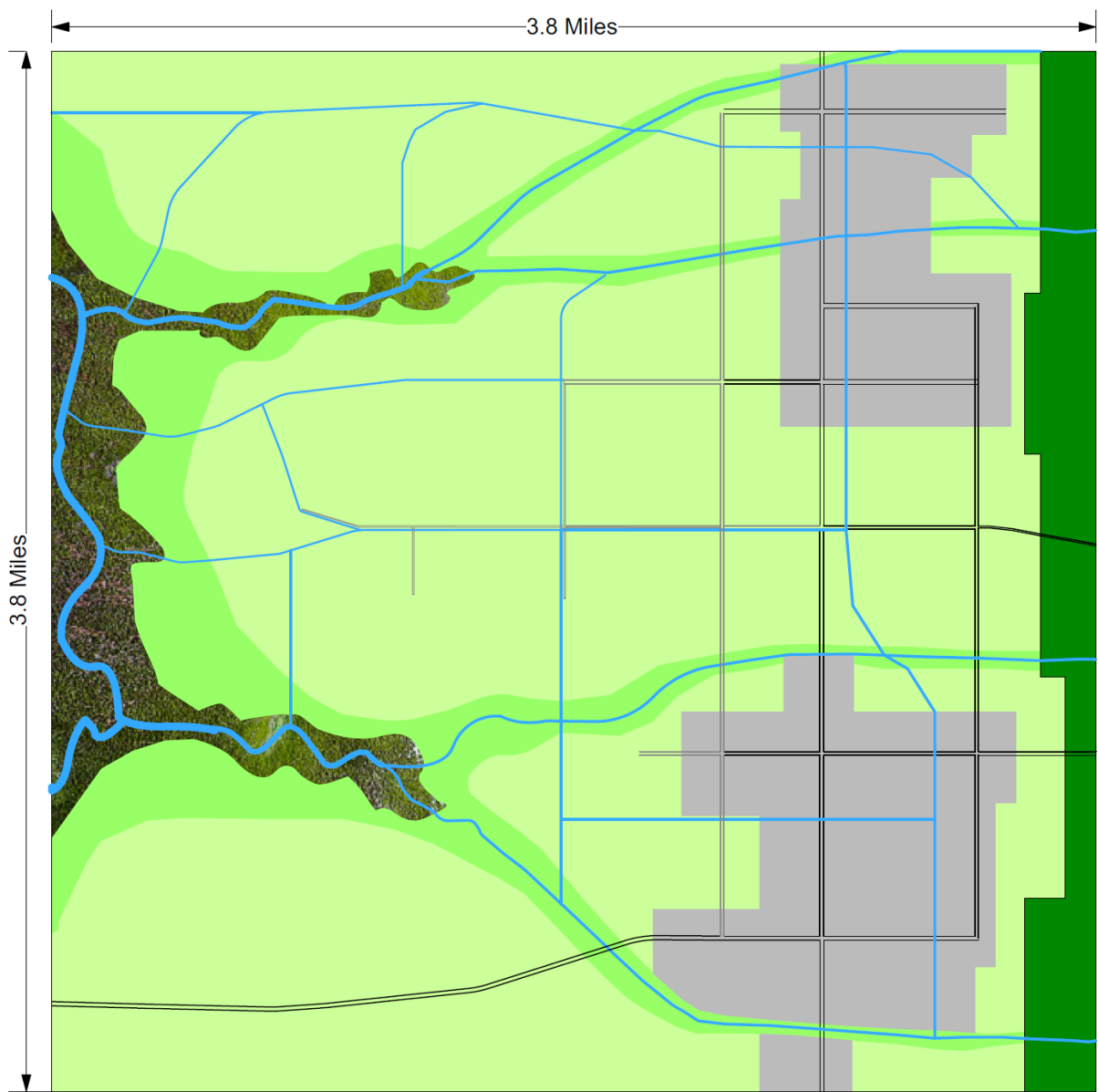
ACREAGE COMPARISON OF COUNTYWIDE GROWTH SCENARIOS

■ Preserved Acres
 ■ Regional Corridor
 ■ Non-Residential
 ■ Parks and Trails
 ■ Multi-family
 ■ Townhome
 ■ SFD / ADU

* Combined percentage of total gross acres for townhome and multi-family land uses

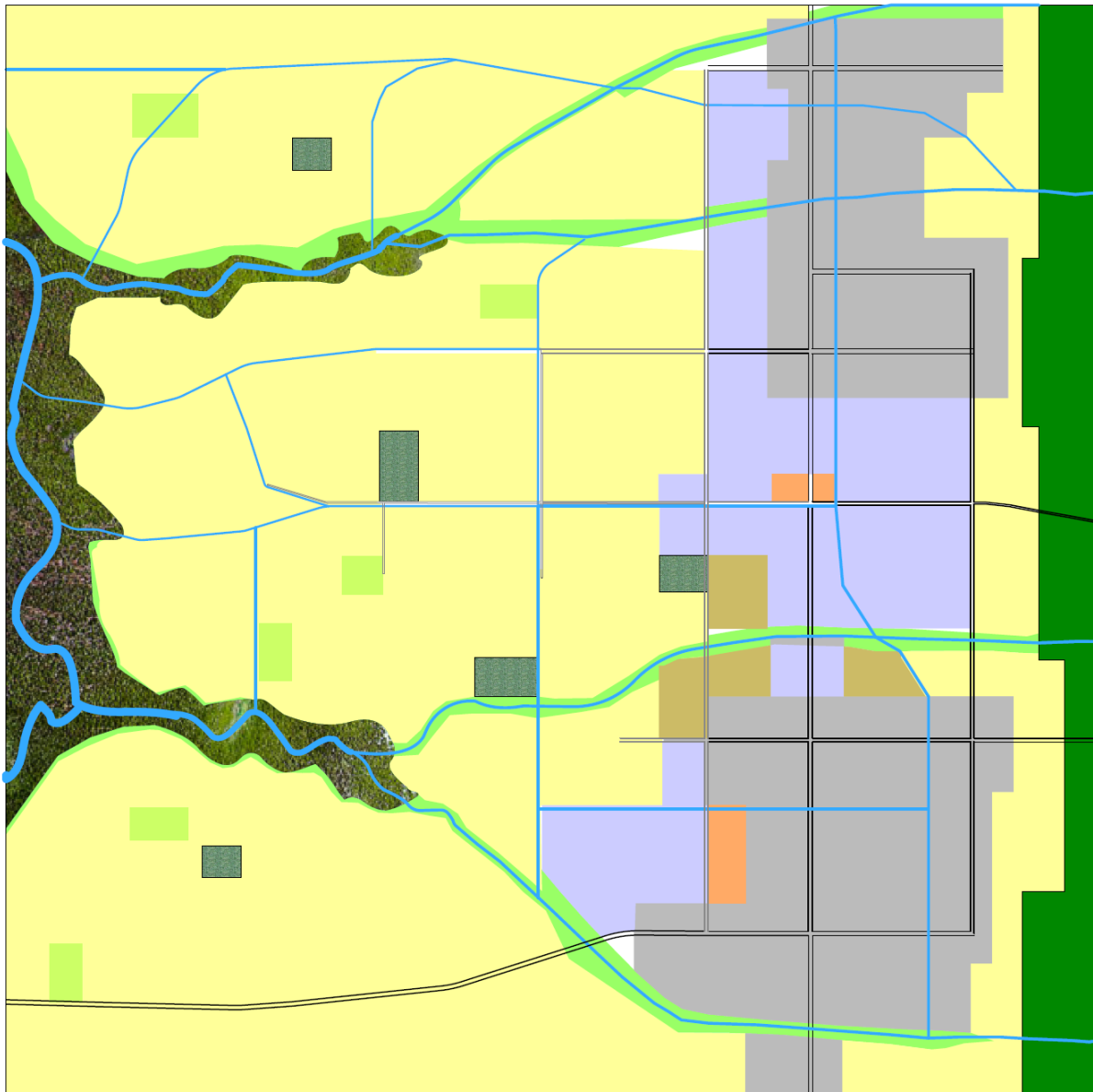


The total development footprint of each countywide scenario varies based primarily on the type and density of residential development. The less expansive scenarios (2 and 3) consume less rapidly, with choices for preserving agland and sensitive land areas, or reserving land for future development.



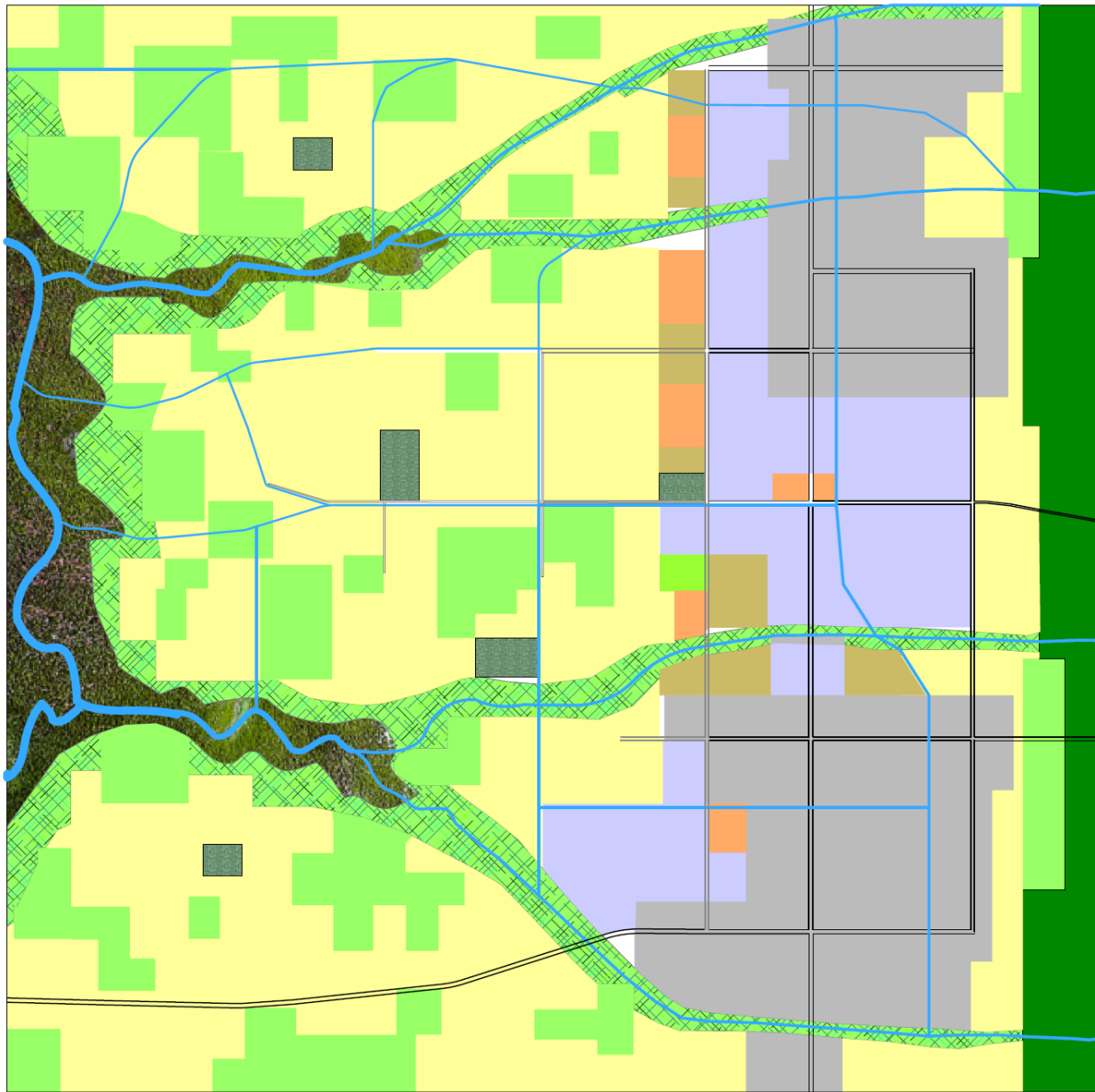
EXISTING COMMUNITIES & SURROUNDING AREA





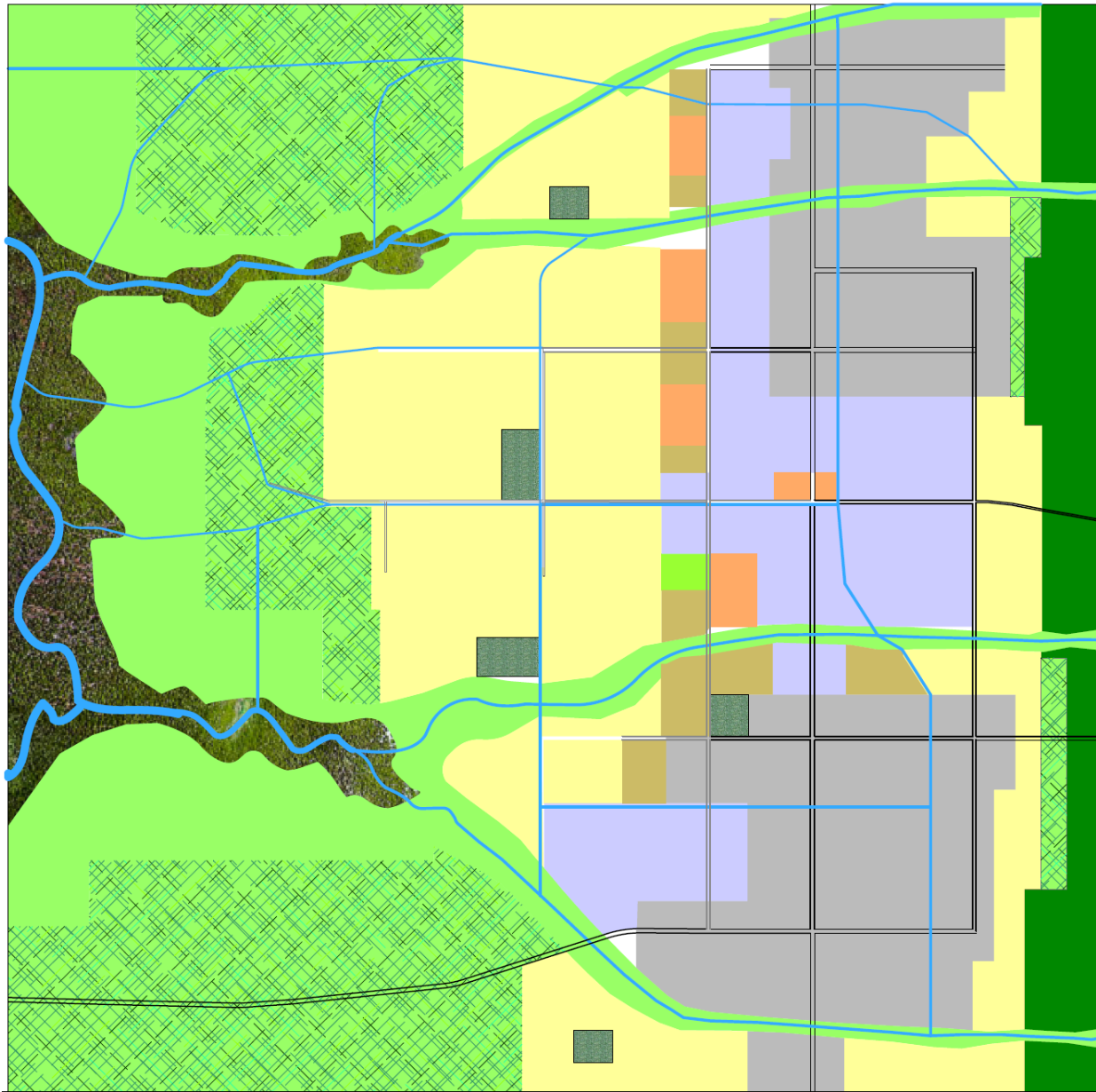
1. EXPANSIVE GROWTH SCENARIO

	SINGLE FAMILY DWELLING / ADU'S		NONDEVELOPABLE
	TOWNHOME		PRESERVED AG / OPEN SPACE
	MULTI-FAMILY		PARKS & TRAILS
	NONRESIDENTIAL		
	EXISTING COMMUNITIES		



2. CLUSTERED GROWTH SCENARIO





3. TRANSFERRED GROWTH SCENARIO

	SINGLE FAMILY DWELLING / ADU'S		NONDEVELOPABLE
	TOWNHOME		PRESERVED AG / OPEN SPACE
	MULTI-FAMILY		PARKS & TRAILS
	NONRESIDENTIAL		RESERVED AG / VACANT LAND
	EXISTING COMMUNITIES		

Scenario Assessment

Nonresidential Uses: Nonresidential uses are assumed to be the same for each scenario. (summary to be updated . . . Includes commercial retail, office (private and public) & industrial, , churches and schools. (taxing rate of group housing . . .)

Housing Costs: Housing types and densities are the primary difference between the total area of land development and quantity of infrastructure required in each land use scenario. The scenarios demonstrate how greater housing diversity and more contiguous growth patterns can result in a reduced development footprint with less infrastructure and reduced water demand.

Additional study is recommended as a follow-up to this assessment to understand area median income as it relates to the growth of industries and jobs in Cache County. This data could be useful to estimate the desired price point of housing, and the types and varieties of housing types that are desired. The lower-density Expansive scenario requires more infrastructure and land per housing unit, and is likely to cost substantially more per housing unit compared to the other scenarios that utilize less infrastructure and less land per housing unit.

The Clustered and Transferred scenarios provide smaller average single family lots, and a greater percentage of townhomes and multi-family units as a percentage of the total future housing units. Despite the greater percentages of townhome and multi-family units in these scenarios, the percentage of combined acreage for these more compact housing types is about 5.5% in the Clustered scenario, and about 8.6% in the Transferred scenario.

Scenario	Single Family Units Acres	ADU Units Acres	Townhome Units Acres	Multi-family Units Acres
Expansive	16,133 (73%) 11,152 (82%)	768 (3.3%) (Part of SFD)	3,114 (14%) 233 (1.7%)	2,102 (9.5%) 85 (0.63%)
Clustered	11,462 (52%) 7,137 (73%)	768 (3.5%) (Part of SFD)	4,251 (19.2%) 316 (3.3%)	5,358 (24.2%) 217 (2.2%)
Transferred	10,562 • 48% 4,340 (63%)	1,033 • 4.7% (Part of SFD)	4,981 • 22.5% 370 (5.4%)	5,570 • 25.2% 223 (3.2%)

Infrastructure Maintenance: Infrastructure costs for local roads and utilities are typically paid for up front by the developer, and passed along to the customer when a home is purchased. Public roads and utilities become the liability of the local government to maintain, repair and eventually replace. Arterial and collector roads require impact fees and public investments to accommodate the growing regional traffic and transmission of water and sewer that accumulates regionally as local development projects occur. Additional study is needed to explore the comparative long-term costs to maintain infrastructure through tax revenues, relative to the fiscal impacts and tax revenues collected from each land use type.

The table below shows the Arterial and Collector Road / Utility Costs per 1,000 residents as an indicator of cost efficiency. This cost ranges from \$3.2 Million per resident in the Expansive scenario to \$2.1 Million in the Transferred Scenario.

Scenario	Total Developed Acres Average Tax Revenues per Acre	Arterial / Collector Road Costs per 1,000 Residents	Total Road / Utility Miles Total Arterial Road Miles	Ratio: Total Residents / Total Road Miles*
Expansive	13,645 \$5,130	\$3,235,835	315.1 70.5	153
Clustered	9,735 \$9,859	\$2,508,700	230.6 51.1	203
Transferred	6,923 \$14,967	\$2,117,222	155.8 38.6	239

* The total new population increment of 48,100 divided by the total road / utility miles indicates an efficiency of road use and reduced taxpayer burden to support road maintenance.

Water Conservation: The scenarios demonstrate that a smaller average residential lot size reduces the total area requiring landscape water. Each scenario shows the potential for an additional 25% of water conservation that could be achieved through water costing rates to discourage excessive watering, and new landscaping ordinances to promote water-wise landscaping for residential and nonresidential uses.

(Insert charts showing comparative water demand per scenario

Fiscal and Economic Impacts: Countywide scenario averages of property tax and sales tax revenues per gross acre are shown below for each land use type. Retail & services with sales transactions generate nearly four times the combined sales tax and property tax revenues per acre compared to office, industrial and multi-family uses. 10 percent of industrial development is presumed to engage in some sales activity which adds some sales tax revenues for this use.

	County Tax Revenues			1% Local Option State Sales Tax		Sales Tax Options		Total Tax Revenues per Acre	
	City Property Taxes per Acre	County Property Taxes per Acre	Total Property Taxes per Acre	0.5% Point of Sale per Acre	0.5% Population Distribution per Acre	0.25% County Option per Acre	Arts & Zoos, Transportation, Infrastructure, Mass Transit	Revenues per Acre	Valuation per s.f.
Retail & Services	\$6,964	\$7,680	\$14,644	\$18,635	N/A	\$9,317	\$31,654	\$74,250	\$400
Office	\$7,662	\$8,449	\$16,110	N/A	N/A	N/A	N/A	\$16,110	\$400
Industrial	\$5,448	\$6,008	\$11,457	\$1,960	N/A	\$1,960	\$2,337	\$17,714	\$255
Group Housing	\$5,429	\$5,987	\$11,416	N/A	\$3,737	N/A	N/A	\$15,153	\$250
Single Family/ADU	\$794	\$861	\$1,654	\$82	\$386	\$41	\$140	\$2,302	\$230
Townhome	\$4,262	\$4,700	\$8,963	\$503	\$3,475	\$251	\$896	\$14,087	\$220
Multi-Family	\$5,555	\$6,125	\$11,680	\$683	\$5,282	\$341	\$1,229	\$19,215	\$210

Sales tax revenues also result from internet purchases in single family / ADU, townhome and multi-family households. In addition to purchasing local goods and services, residential households purchase an average of \$2,300 of goods online per person each year. This results in point-of-sale sales tax revenues of \$82 per acre for Single Family Dwellings, \$503 per acre for Townhomes, and \$683 / Acre for Multi-family in the Expansive scenario. The sales tax revenues generated per acre in single family residential areas increases in the Clustered and Transferred scenarios given the increase in household density.

Household Point of Sale: Sales Tax Revenues per Acre

Scenario	Single Family / ADU Per Acre	Townhome Per Acre	Multi-family Per Acre
Expansive	\$82	\$503	\$683
Clustered	\$109	\$529	\$640
Transferred	\$174	\$528	\$653

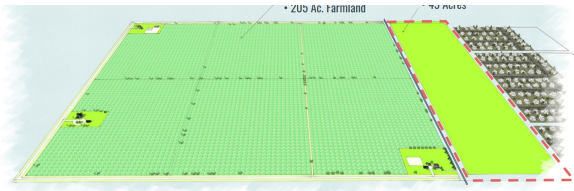
Residential Spending in the Community: Residential spending at local retail and service establishments is a substantial economic driver for commercial development given that the existence of retail is based primarily on rooftops in demand of services. Additional retail demand factors include regional vehicle travel (such as along an arterial or highway), business / employee demands and tourism.

The table below shows total household spending on local taxable goods and services, the spending per acre. These figures are based on the assumption of single family household income at 108% of the average community household income, while townhome households are at 85% and Multi-family at 60% of the average household income. 22% of household income is assumed to be spent on taxable goods and services, with 60% of this spending assumed to be spent at local brick and mortar businesses.

Total Household Spending in Community

Scenario	Single Family / ADU (Per Acre)	Townhome (Per Acre)	Multi-family (Per Acre)
Expansive	\$182,315,906 (\$16,348)	\$23,458,874 (\$100,522)	\$11,651,713 (\$136,542)
Clustered	\$156,265,390 (\$21,895)	\$33,422,233 (\$105,795)	\$27,738,871 (\$127,998)
Transferred	\$150,602,533 (\$34,704)	\$39,135,119 (\$105,647)	\$29,088,964 (\$130,526)

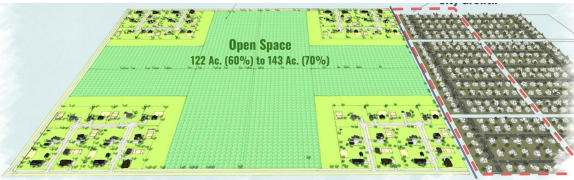
Preserved Land vs. Reserved Land: Each scenario explores the potential for land preservation as an element of the assumed county-wide development pattern. The images below provide more detailed visual perspectives of each potential residential development pattern.



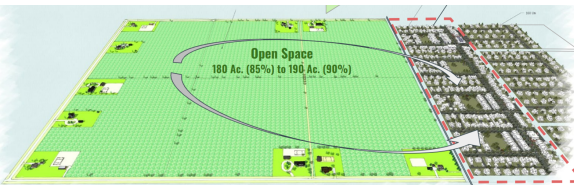
Existing Condition. Vacant land (light green outlined in red) adjacent to the edge of a municipality is assumed to be within the City's potential annexation service area for roads, sewer, water and other services. Growth beyond this service area is likely to remain within the County unincorporated area.



1. Expansive Growth Scenario. Suburban residential growth that is predominantly single family residential expands outward from the city(s); County unincorporated growth assumes rezoning of land to allow for 1.5 ac. To 6 acre lots. Some County development is assumed to voluntarily cluster the lots and preserve ag remainder lots totaling about 7.4% as open space.



2. Clustered Growth Scenario. As an alternative to rezoning for larger lots and expansive development in the County, a density bonus is offered as an incentive to cluster development and preserve 23% of agland and sensitive areas near wetlands and floodplains. Suburban residential development expands outward at a similar single family density as the Expansive Growth scenario, but with a greater percentage of townhome and multi-family housing. With a reduced growth footprint, an additional 16% of the study area remains as **reserved land** that could absorb additional future growth.



3. Transferred Growth Scenario. As an alternative to rezoning for larger lots and expansive development in the County, a density bonus is offered as an incentive to transfer development away from sensitive wetland and floodplain areas where roads and infrastructure are less available. This results in preservation of 35% of agricultural lands near wetlands and sensitive floodplain areas. With smaller average lot sizes and a greater percentage of townhomes and multi-family development in the City(s), there is less pressure on open lands, leaving an additional 38% of the study area as **reserved land** that could absorb additional future growth.

	Scenario 1. Expansive Growth			Scenario 2. Clustered Development			Scenario 3. Transferred Development			Notes relating to changes from 2022 to 2040
	Total	Cities / Towns	Unincorp	Total	Cities / Towns	Unincorp	Total	Cities / Towns	Unincorp	
New Household Population	48,107	45,804	2,303	48,107	45,804	2,303	48,107	45,804	2,303	Increase of household (H.H.) population
Group Quarters Population	586	586		586	586		586	586		Increase of group quarters pop. (i.e. assisted living)
New Employees	43,632	43,606	26	43,632	43,606	26	43,632	43,606	26	Increase of new Employees
New Households	22,118	21,133	985	22,118	21,133	985	22,118	21,133	985	Total new H.H. units
SFD Units	16,133	15,194	939	11,462	10,605	857	10,562	9,704	857	Increase of Single Family Dwelling (SFD) Units
16,902 ADU's	768	722	46	768	722	46	1,033	993	39	Increase of Accessory Dwelling Units (ADU's)
% SFD with ADU's	4.8%	3.4%	4.7%	6.7%	3.4%	4.7%	9.8%	4.7%	4.0%	Percentage of new SFD Units with an ADU
(SFD / ADU Units per Acre)	1.5	3.3	0.16	1.7	3.2	0.22	2.7	3.5	0.32	SFD gross density (Units per Acre)
SFD / ADU Developed Acres	11,152	4,838	6,315	7,137	3,570	3,567	4,340	3,084	1,255	
Townhome Units	3,114	3,114	0	4,251	4,172	79	4,981	4,902	79	
(Units per Acre)	13.34	13.3	N/A	13.5	13.5	12.5	13.4	13.5	12.5	
Townhome Developed Acres	233	233		316	310	6.3	370	364	6.3	
Multi-Family Units	2,102	2,102	0	5,358	5,358	0	5,570	5,570	0	
(Units per Acre)	24.6	24.6	N/A	24.7	24.7	N/A	25.0	25.0	N/A	
Multi-Family Developed Acres	85	85		217	217		223	223		
Nonresidential Development Acres	1684	1669	15	1684	1669	15	1684	1669	15	
Total Developed Acres	13,645	7,986	7,278	9,735	6,429	3,946	6,923	5,666	1,346	
Preserved Acres	1,092	N/A	1,092	2,960	N/A	2,960	6,728	N/A	6,728	Total developed acres of all land use types
% Preserved (of Developed and Preserved)	7.4%	N/A	N/A	23.3%	N/A	N/A	49.3%	N/A	N/A	Total acres of preserved land through clustering / TDR
Parks and Trails Developed Acres	150.8	142.3	8	150.8	142.3	8	150.8	142.3	8	% of land preserved through land development
Road / Utility Miles	315.1	257.9	57.1	237.5	200.8	36.8	201.2	182.8	18.4	Total road miles (and utility line miles)
Arterial / Collector Road Miles	70.53	47.79	22.74	51.07	38.74	12.33	38.64	34.44	4.21	Total miles of arterial / collector roads / streets
Arterial & Collector R-O-W Acres	339.2	226.1	113.1	230.6	153.7	76.9	155.8	103.9	51.9	
Arterial / Collector Infrastructure	\$155,666,337	\$137,472,185	\$18,194,151	\$120,686,027	\$110,820,126	\$9,865,901	\$101,853,177	\$98,489,124	\$3,364,053	
Art. & Coll. Road / Utility Costs per 1,000	\$3,235,835	\$3,001,287	\$7,901,619	\$2,508,700	\$2,419,420	\$4,284,706	\$2,117,222	\$2,150,210	\$1,460,990	Road / utility costs per 1,000 residents as a cost comparison
Water Use (GPD per Person)	356.0	353.7	401.5	309.3	307.2	351.9	296.9	296.6	303.1	Reduced lot sizes / landscape area reduces outdoor water use
Water Use (GPD per Person), 25% Conservation	267.0	265.3	301.1	232.0	230.4	263.9	222.7	222.4	227.4	Potential 25% water use reduction through water-wise landscapir

3. LAND USE PLANNING CONTEXT

This Assessment is based on the understanding that local governments determine the type, density, and character of growth through zoning and development standards.

Consistent with State Code and recommendations from the General Plan, the following land use planning principles, definitions and statements provide context for considering the legal framework and potential application of each scenario. These statements are intended to encourage ongoing conversations between communities to explore how urban and rural areas could be shaped to benefit Cache County residents and businesses.

LAND USE AUTHORITY AND PRIVATE PROPERTY RIGHTS

- **Cache County recognizes a municipality's authority** to govern and make land use decisions as a political subdivision of the State. Each community may choose to annex unincorporated land into the expanding city limits and apply adopted zoning and development standards. With annexation and development approvals, the City becomes responsible to provide services to new residential and/or commercial areas.
- An appropriate balance should be found between private property rights and the policies and regulations of local land use authority. Cache County must recognize legal private property rights within the unincorporated area, and permit new development based on current zoning and applicable development standards.
- **Growth and development patterns** affect the visual quality of our valley, the potential open space preservation, infrastructure costs and property tax rates, economic development opportunities, and the diversity of housing choices available for future generations.
- The majority of **property rights** in the unincorporated area of Cache Valley are defined by the A-10 zoning district or 1 unit per 10 acres.
- **Downzoning of property** in the County's unincorporated area is not recommended in the General Plan in deference to current property rights. The Plan recommends the A10 zone as a base density to achieve a clustered or transferred development pattern to achieve potential conservation of sensitive land areas, recreational areas, and agricultural areas.
- **Upzoning of Property:** A growing trend in the unincorporated area is for property owners to seek an upzoning of property to a potential higher density of development, such as a rezone from A10 to RU5 or RU2. The intent of the owners is to increase property values and offset development costs by adding the potential for more single-family dwellings on the property.
 - This rezone trend is reflected in the '**Baseline' growth scenario** to explore the impacts of this development pattern as predominant throughout the County's

unincorporated area. The upzoning trend may run counter to the goal of other property owners who wish to maintain a lower density and continued agricultural use.

DEVELOPMENT AS A DRIVER FOR OPEN SPACE PRESERVATION

- **Density Bonus to Incentivize Land Conservation:** As an alternative to upzoning property, a density bonus could be offered to property owners with A-10 zoning as an incentive to preserve the majority of the property as open space, and to design the development to be placed onto smaller building lots.
- The following zoning tools use development as a catalyst to explore an appropriate balance of land development and land preservation. Desirable areas for preservation may include trail corridors, agricultural lands, riparian corridors, habitat areas, and other types of open spaces.
 - **Cluster Development** - building lower density development on medium to smaller lot sizes in order to preserve adjacent open space areas. A density bonus incentive to cluster can encourage this development pattern.
 - **Transferable Development Rights (TDR)** - Transferring, or selling the right to develop lower density development from desired open space areas (or sending areas) to desired development areas (receiving zones). Receiving zones may increase density to moderate or higher densities upon purchasing development rights. A density bonus incentive to sell and buy TDRs can encourage this development pattern.
 - **Land Values and Preservation Potential:** Land typically appraises for more when located near improved roads and utilities, vs. land that is further away from improvements. TDR presents opportunities for remotely located property owners to transfer development rights to development receiving zones located closer to utilities and services.

LAND USE DEVELOPMENT TYPES AND DENSITIES

- **Very low densities** consist primarily of single-family residences on larger lots, ranging from 1 to 10 acres, with the potential for accessory dwelling units (ADU's).
- **Lower densities** include single-family residential development with the potential for accessory dwelling units (ADU's) at a density ranging from 1 to 3 units per acre. This development type generates lower traffic volumes on local and minor collector streets compared to moderate and higher densities but costs more to service roads and utilities given the limited number of homes per mile of road/utility.

-
- **Moderate densities** include single-family residential and townhome development ranging from 1 to 2.5 stories. Development at this scale utilizes infrastructure more efficiently than lower densities and generates moderate traffic volumes that can be supported by local and collector streets.
 - **Higher densities** including apartments, townhomes, and mixed use development ranging from 3 to 5 stories are best located near existing transit and services in urban areas. This results in shorter vehicle trips, and more walking, biking, and transit use, resulting in a potential reduction in total vehicle miles traveled (VMT). More vehicle traffic is generated compared to moderate and lower densities, which can be supported by a mix of local, collector, and arterial streets.
 - Higher densities are typically more compatible with commercial areas, allowing for mixed-use development opportunities. These include ground-level flex commercial spaces or adjacent commercial businesses that are supported by multiple surrounding residents within close proximity.
 - **Accessory Dwelling Units (ADU)** provide an additional property right to a single-family homeowner to create a moderate income housing rental opportunity. This can benefit the owner with an additional source of income to pay for increased housing costs and benefit the renter to live in a moderately-priced home while saving for a future homeownership opportunity.
 - This housing option can increase the housing supply without changing the character of predominantly single-family residential areas.
 - ADUs include internal ADU's, such as a basement or attached-wall unit to the primary structure, or external ADU's as a detached unit.
 - The percentage of households with ADUs varies by scenario, with fewer ADU's in the Expansive Growth Scenario (1), and greater percentages in Scenario 2 (Clustered Development) and Scenario 3 (Transferred Development).

LAND USE DEVELOPMENT TYPES AND DENSITIES

- Some municipalities struggle to provide utility services for new development, particularly when it is proposed beyond the practical reach of municipal sewer and/or water services. The feasibility of extending these services can be more challenging in smaller communities where there is less commercial development and a lower tax base to invest in community development.
 - Cache County could explore cluster or transferred growth (TDR) options with density bonus incentives adjacent to municipalities when services cannot be provided. This approach could be a catalyst for preserving surrounding open space areas, including sensitive areas, trail corridors, and agricultural areas.

-
- County transferred growth adjacent to existing communities may warrant new road and utility standards that are designed to be consistent with an adjacent community's development standards for roads, pathways, open space for recreation, etc.
 - Development throughout the Cache County unincorporated area has typically occurred at very low residential densities based on individual wells and septic systems provided on each parcel or lot.
 - Group water systems and septic systems could support the establishment of moderate to higher density receiving zones through a TDR (Transferable Development Right) program as a means to transfer density from surrounding open space areas and preserve open space.
 - Additional development density could be established within the County's unincorporated area through (1) a County Water District to support the development of new public water systems, and (2) a septic service district to support the establishment, operation, and inspection of group septic systems.
 - Group septic systems require consolidated drainage areas (roughly 30% of the development area) that could be used for recreation, and SPIN (Small Plot Intensive) agriculture, or common gardening areas.

LAND USE CONNECTIVITY AND MOBILITY

- **Connectivity and Mobility:** As development occurs in County unincorporated areas, the County will require roads to be improved and expanded to provide access and improve the County's road grid consistent with **County Transportation Master Plan**, the **Cache Metropolitan Planning Organization Long Range Plan**, and the **Cache County Road Manual**.
 - Grid or continuous flow public roads rather than dead-end streets result in more efficient maintenance, snow removal, and provision of services. A road grid for connectivity and access to new growth areas provides better route access for Fire and EMT, deliveries, and general circulation.
 - All roads shall be located on the grid, and rights-of-way should vary based on roadway functional classification.
 - New development follows a grid pattern for all new roads being constructed wherever practical, with connections to existing and future planned roads and adjacent properties as development progresses.
 - The road grid generally follows north/south and east/west orthogonal directions although variations or modified grid patterns may be necessary to avoid steep slopes, sensitive lands, or protected areas.

-
- Spacing of the grid or distance between road intersections may vary based on the density of new development to gain access and receive services such as road maintenance, snow plowing, Fire/EMT, garbage, deliveries, etc.
 - Two points of access required for more than 30 homes, per the Fire Code
 - For example, where clustered or transferred development may be more concentrated, a tighter grid spacing would be required, while areas preserved for open space would require minimal road connectivity.

OPPORTUNITIES TO EXPLORE THROUGH COLLABORATION WITH COMMUNITIES

- Timing, character, and approach to balancing growth and land preservation within the future annexation areas of each existing community.
- Interlocal agreements and annexation agreements to establish land use master plans within future annexation areas..
- Appropriate density bonus incentives for trails and greenway corridors, particularly along drainages and riparian areas.
- Density bonus incentives that encourage property owners to explore cooperation in master-planning larger consolidated land areas, with emphasis on development transfers for equity and beneficial outcomes.
- Growth patterns are achieved in cooperation with municipalities, or independent of municipal annexations and development to shape growth. A land development pattern may be established to support the preservation of sensitive areas, trail corridors, and agricultural open space areas. This can be achieved through inter-local cooperation between the County and Cities.
- More compact growth patterns place less pressure on open land areas, including areas that could be preserved or reserved for future development through Cluster, TDR, or PDR.



APPEDIX A: URBAN AND RURAL AREA ASSESSMENT

Urban and Rural Area Assessment

METHODOLOGY AND ASSESSMENT CRITERIA

For each service, the following methodology and assessment criteria will be used to assess impact due to growth:

- Determine existing metrics for each service based on capacity/costs that can be used to measure the impact of growth
- Determine how metrics change per each growth scenario
- Assess impact to each service based on specific growth scenario

The following describes each service included in the URAA analysis and the metrics used to determine growth impact.

ASSESSMENT CRITERIA FOR EACH SERVICE

FIRE AND EMS

The service that Fire and EMS provide the County is one of the most vital due to its nature of responding to emergencies. As growth occurs, it is typical at a minimum to maintain the current response time per capita. Currently, in Cache County there are 14 Fire Stations. For each growth scenario, the analysis will investigate how development changes travel times based on distance traveled to new development and what improvements are needed to maintain current response time per capita.

LAW ENFORCEMENT (SHERIFF)

Police as a service provides a very important role, similar to Fire and EMS within the County and is measured in a similar way. As growth occurs, this analysis will focus on maintaining existing response times. Currently, in Cache County there are 135 full deputized staff and seven part-time staff. For each growth scenario, the analysis will investigate how development changes travel times based on distance traveled to new development and what improvements are needed to maintain current response time per capita.

SEWER

Currently in unincorporated Cache County, development uses septic for its sewer. There are municipalities within the County that have full-service sewer systems:

- Logan City – Collects sewer for Logan City, Smithfield, Hyde Park, North Logan, River Heights and Nibley
- Hyrum City
- Wellsville City

Analysis will be focused on areas where there are sewer systems as septic tanks are typically installed and maintained by private development. The greatest impact to sewer is due to the type of future uses as well as the location of the development. For each growth scenario, the analysis will look at the

improvements needed based on the current master planning for each system and how project costs and how timelines could be changed.

WATER

The analysis for water will be split into two sections, Culinary and Agriculture (Irrigation).

For Culinary, the analysis will be based on the supply and demands based on growth. In addition to this, it is assumed that the goal created by the Division of Water Resources (DWRe) of 25% reduction will be reached by 2025. The impact of future growth, outside of the demand for water, is the infrastructure required to serve new development. The Existing Conditions White Paper shows future deficiency on supply based on proposed future populations. For each growth scenario, the analysis will look at the overall water demand based on the location and type of development and provide, at a high level, the improvements required to meet those demands.

For Irrigation, the analysis will look at the current usage for agriculture from the Blacksmith Fork River, High Creek, Little Bear River, Logan River, Lower Bear River and Summit Creek. The analysis will look at how much irrigation water is required per land use based on current conditions. For each growth scenario, the required irrigation per land use will be applied to determine the required water required for the county.

ROADWAYS

Transportation networks are important for economic development and travel within the County. Roadway capacities are based on the type of roadway and number of lanes. All cities have a transportation element to their General Plan that includes proposed roadway networks that plan to meet the demands of future growth. Cache County also has a transportation plan in place to help meet the demands of future growth.

Typically, roadway performance is measured in Level of Service (LOS) based on roadway volumes and functional classification. Roadway volumes in the unincorporated areas will mainly be lower volume roadways and roadway capacity will not be a problem. Therefore, capacity analysis will not be included as part of the overall analysis. This analysis will focus on the current plans and connectivity future roadways bring to the County. For each growth scenario, an approximate cost for roadway infrastructure will be assigned based on the type and location of development to determine impacts to the roadway network. The analysis will also determine if the current projects within the master plan would be altered due to growth patterns.

GROWTH SCENARIOS

The assessment criteria for each service above will be analyzed for each growth scenario included in this URAA. The assumption is that the future population projections for each growth scenario will remain the same, but the land uses affiliated with the growth scenario will shift to estimate growth patterns. Each growth scenario will not determine what will happen on specific properties within the County. The following describes each growth scenario:

SCENARIO 1: BASELINE GROWTH (EXISTING GROWTH PATTERNS)

This scenario looks at the growth over the past 10 years and assumes similar growth patterns moving forward. Some characteristics of this growth scenario are:

- Growth occurring throughout the County

SCENARIO 2: GROWTH OUTWARD FROM CITIES

This scenario will assume the growth projections in Scenario 1 are used but will allocate that growth starting at the current city boundaries moving outward.

- All growth will be pushed to the city boundary lines
- Incentives, such as Transfer of Development Rights (TDRs) are used to increase available densities in those areas and reserving low density/agriculture in the rural areas

SCENARIO 3: GROWTH IN RURAL AREAS

This scenario will assume the growth projections in Scenario 1 are used but will allocate that growth in the rural areas of the County. In this scenario, rural areas of the County have connections to utility systems such as water and sewer.

- All growth will be pushed to be in the rural areas in the County
- Incentives, such as cluster zoning (RU-2 and RU-5) are used to increase available densities while maintaining agriculture uses

SCENARIO 4: GROWTH IN EMERGING AREAS

This scenario will assume the growth projections in Scenario 1 are used but will allocate that growth in areas indicated as emerging areas within the County.

- For each service provider, the following methodology and assessment criteria to be used:
 - Pattern and geographic reach of existing services and pattern/impact of individual systems – how each service provides functions
 - Determination if this pattern can be sustainable and how they impact existing and future municipal systems
 - Better pattern for future growth? Transition to three growth scenarios by explaining the three growth scenarios analyzed
 - Baseline (existing growth patterns)
 - Growth Outward from Cities
 - Growth in Rural Areas
 - Growth in Emerging Areas
 - Provide parameters for the Cost of Services Model

Growth Patterns and Future Needs Analysis

Horrocks analyzed infrastructure needs under different growth patterns to determine the costs and impacts associated with varying growth patterns within Cache County. Growth patterns can change as economic and lifestyle choices change over time. The following sections outline the findings for four types of growth patterns.

SCENARIO 1: BASELINE (EXISTING GROWTH PATTERNS)

This growth scenario looks at the growth patterns from the previous 10 years throughout the County and patterns that growth into the future to determine the impact. During the past decade, there has been an economic recession as well as an economic boom. With opposing economic situations occurring during the same decade, it is assumed that the growth between 2010 and 2020 represents a solid foundation to estimate average growth into the future.

To provide an overview of recent growth, the parcels developed throughout the County were mapped with the northern and southern areas of the county shown in **Figure 1** and **Figure 2**, respectively with the number of residential dwellings, commercial and institutional development in **Table 1** and **Table 2**.



Figure 1: Development in Cache County Since 2010 (Northern Area)

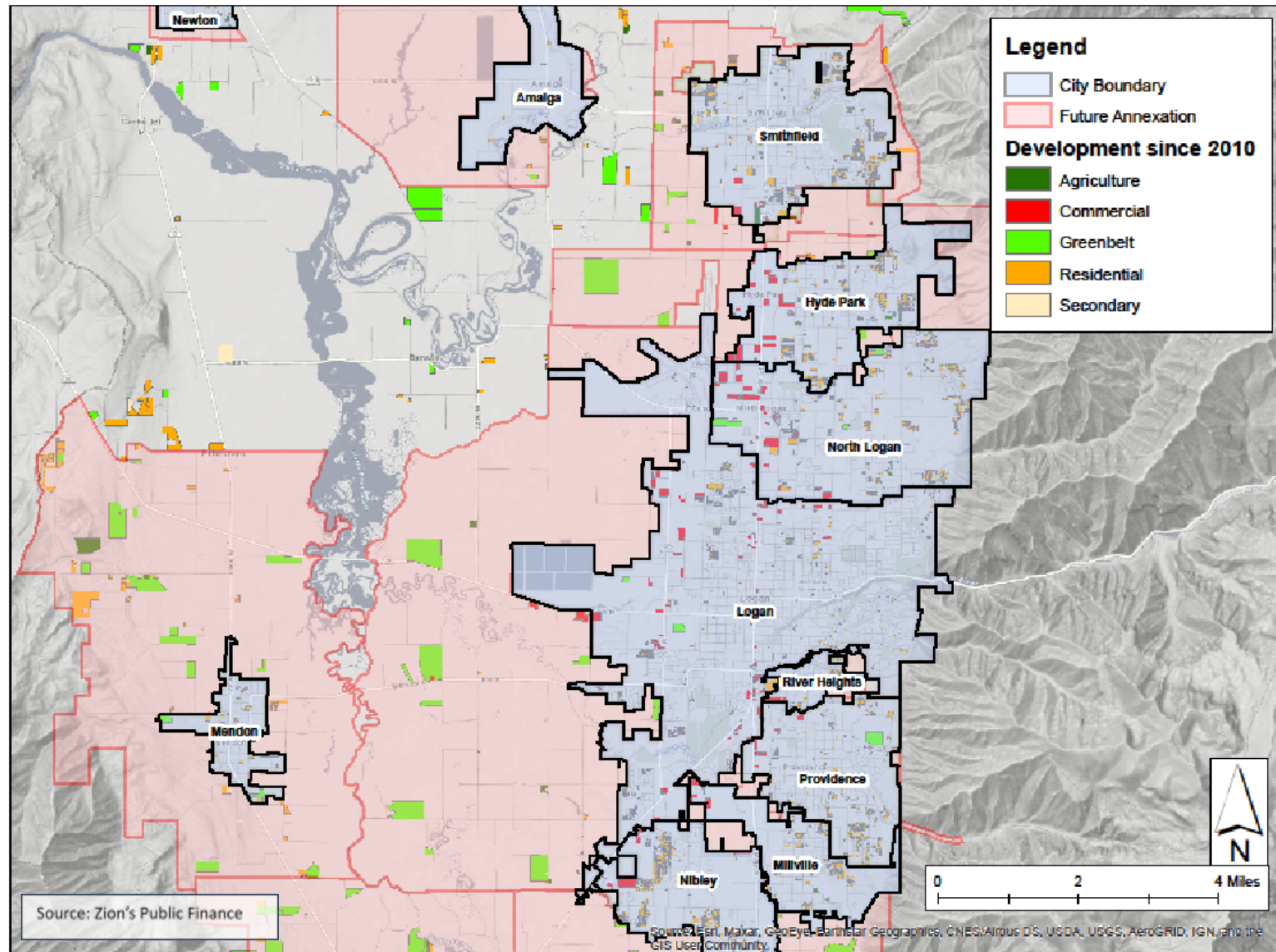




Figure 2: Development in Cache County Since 2010 (Southern Area)

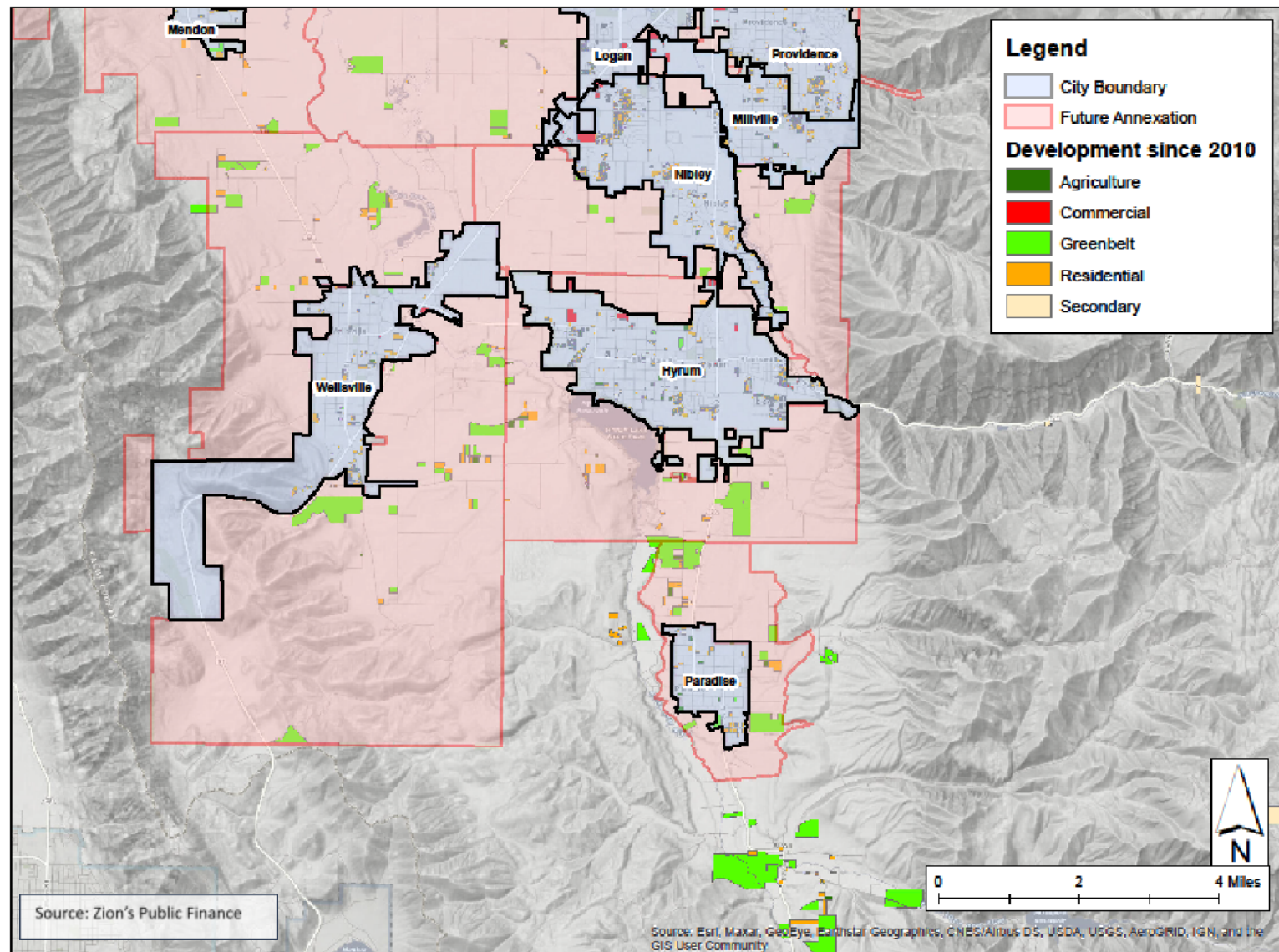


Table 1: Residential Dwellings developed Since 2010

Community	Residential Dwellings Added
Smithfield	1,136
Logan City	961
Hyrum	522
North Logan	471
Nibley	405

Table 2: Commercial and Institutional Development Since 2010

Community	Commercial Development Added	Institutional Development Added
Logan City	243	52
North Logan	34	9
Smithfield	23	5
Hyde Park	20	4
Hyrum	0	33

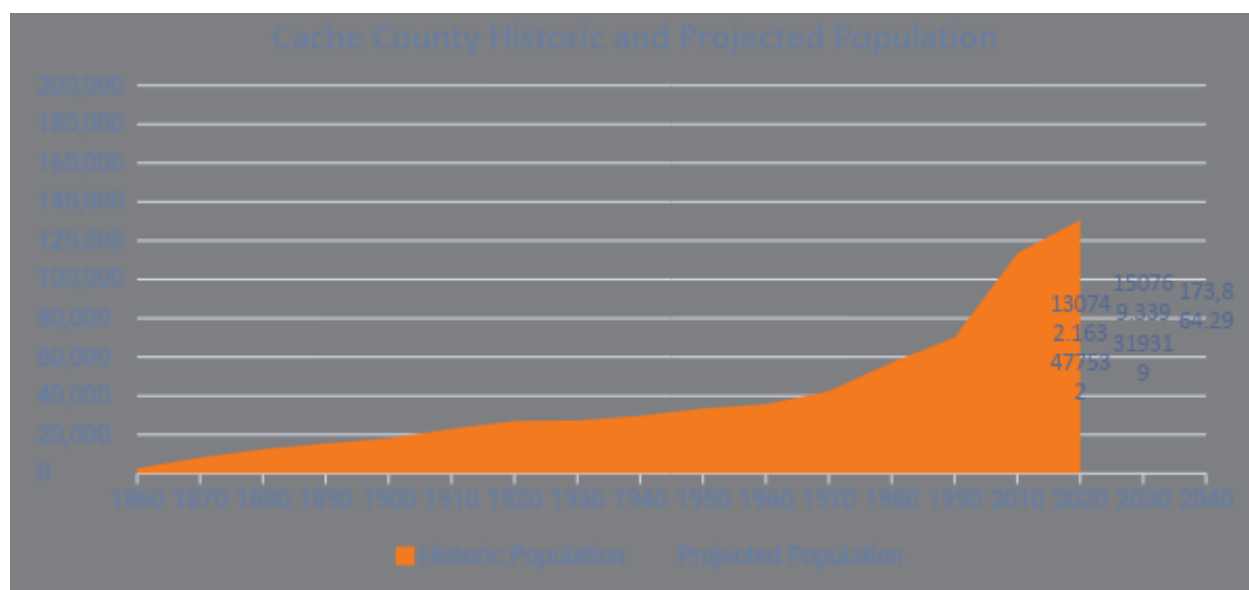
The following describes some observations from the data gathered in **Figure 1**, **Figure 2**, **Table 1** and **Table 2**:

- A significant amount of growth occurred within City Boundaries with development spread throughout the unincorporated County area.
- In northern Cache County, within Hyde Park and North Logan, a lot of commercial development happened along US-91.
- Residential development occurred mainly within municipal boundaries, except for a few areas:
 - Between Smithfield and Amalga
 - South of Newton
 - North of Mendon
 - North and East of Wellsville
 - Surrounding Paradise
- There was little development along the current municipal boundary lines.

POPULATION PROJECTIONS FOR SCENARIO 1

Horrocks reviewed all available data to estimate population projections based on current growth patterns. Included in the Cache County Existing Conditions and Policy Gap report, the population growth is estimated to follow a similar pattern as seen from 2010-2020 and is shown in **Figure 3** (Figure 2 of the Existing Conditions and Policy Gap Report), with an estimated population of 170,000 by 2040.

Figure 3: Cache County Historic and Projected Population



Another method to estimate population and growth trends is to review water connections. **Table 3** shows the population growth for communities in Cache County based on water connections.

Table 3: Population Growth from 2010 – 2020 (Based on Water Connections)

Community	2010 Population	2020 Population	Growth (Pop)
Amalga	490	520	30
Benson	709	675	-34
Clarkston	272	764	492
Cornish	271	315	44
Goasland Spring	48	50	2
High Creek	125	130	5
Hyde Park	3,750	4,990	1,240
Hyrum (Culinary)	7,600	8,860	1,260
Lewiston	2,078	1,800	-278
Logan	50,000	54,325	4,325
Mendon	1,400	1,480	80
Millville	1,900	2,180	280
Newton	800	845	45

Community	2010 Population	2020 Population	Growth (Pop)
Nibley	5,600	7,730	2,130
North Logan	8,600	10,875	2,275
Paradise	830	999	169
Providence	6,441	7,990	1,549
Richmond	2,350	2,740	390
River Heights	1,670	2,345	675
Smithfield (Culinary)	10,223	13,624	3,401
Trenton	503	530	27
Wellsville	330	4,860	4,530
Total	105,992	128,625	22,633

Existing projection data provided by the Kem. Gardner Policy Institute 2015-2065 State and County Projections released in July 2017 was reviewed. The data shows a 10-year growth of 20,294 as shown in **Table 4**. The 2020 population in this report is 3,000 higher than the actual 2020 population from the Existing Conditions and Policy Gap Report.

Table 4: Kem. Gardner Policy Institute 2010-2020 Growth

Source	2010 Population	2020 Population	Difference from Policy and Gap Report
Existing Conditions and Policy Gap	113,307	133,601	3,000

To determine the growth to establish a baseline condition, Horrocks reviewed the growth patterns included in the Existing Conditions and Policy Gap report, the Kem Gardner Policy and by using Water Connections. The Existing Conditions and Policy Gap report and water connections assume straight line growth, meaning the 10-year growth from 2010-2020 is applied every 10-years to establish a 2040 population. The Kem Gardner Policy Institute shows a little more aggressive growth between 2020-2040 but is based on household and socioeconomic data throughout the county. As shown in **Table 5**, the growth from 2020-2040 ranges from 39,200 to 51,050.

Table 5: Population Projection Summary

Source	2020 Population	2040 Population	Growth
Existing Conditions and Policy Gap	130,739	170,000	39,261
Kem. Gardner Policy	133,601	184,635	51,034
Water Connection	128,625	173,891	45,266

Assuming the same growth patterns for each growth reviewed, Horrocks looked at the 2040 population if the 2020 populations were set to match the Existing Conditions and Policy Gap Report. **Table 6** shows that even with a similar starting population, using both the water connections data and Kem Gardner Policy yields higher projected population data.

Table 6: Population Projection Summary (Assuming Similar 2020 Populations)

Source	2020 Population	2040 Population	Difference from Existing Conditions Report
Existing Conditions and Policy Gap	130,739	170,000	-
Kem. Gardner Policy	130,739*	181,773	11,773
Water Connection	130,739*	176,005	6,005

After review, we believe these three methodologies provide a realistic range for growth from 2020-2040 and beyond and will be used as the baseline growth for the analysis.

GROWTH ANALYSIS

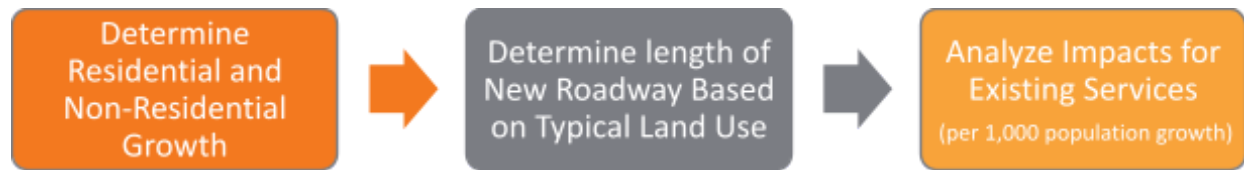
Using the baseline growth condition, a model was created to best estimate the impact of future growth moving forward. The goal is to use similar characteristics between existing services to create a simple, easy to use model that can be updated as needed in the future. The following lists similar characteristics that can be used to help analyze and estimate future impacts of baseline growth:

- Infrastructure/Departments use the existing roadway network to provide services to the population
- Base infrastructure is required regardless of land use and density
- As density increases so does the impact to the services (i.e., density brings wider roadways, bigger water/sewer infrastructure)

Establish a Rate for Growth

Focusing on an exact future population with the analysis can be difficult to maintain over time. If growth patterns change over time, it makes the model obsolete and unusable. This model focuses on determining a growth rate per a 1,000 increase in population. This allows for flexibility moving forward to account for potential changes in population growth rate or pattern. It focuses on what impacts are expected in Cache County based on the change in population, not what is projected in 2040.

The rate for growth will be calculated for each specific service but will be derived from the same model using the similar characteristics listed above. The following flowchart outlines the general process the model uses to establish the rate of growth for each service with the following sections describing the analysis in detail:



Determine Residential and Non-Residential Growth

To estimate residential and non-residential growth, the following data were used:

Residential

- Typical lot sizes for single family and multi-family residential uses
- The approximate percentage of total growth occurring for residential and non-residential uses
- Total people per household
- Projected population data

Non-Residential

- Size of Non-Residential space per employee
- Assumptions on ratios between Retail, Office, Civic and Industrial uses
- Assumption that employment growth mimics population growth

Horrocks worked with County Staff to leverage this information to provide an estimate number of new households and employment opportunities throughout the County. The data generated by the County looks specifically at assumptions for every city as well as the unincorporated portions of the County while this analysis focuses on a summary of all Cities versus the Unincorporated County. **Table 7**, shows the estimated residential and non-residential baseline growth from 2020-2040.

Table 7: New Household Data (2020-2040)

Community	New Population	Ave. People Per Household	New Households
Total Incorporated	45,234	3.20*	15,716
Total Unincorporated	2,616	2.77	945
Total	47,850	2.87*	16,661

*Average People Per Household for all Cities in Cache County Averaged

It is estimated that there are 13,991 employment opportunities throughout the County as of 2020, which correlates to one employment opportunity per 9.73 people in the County. It is assumed that the growth for employment throughout the county will directly correlate with the population growth. The 2020-2040 growth will provide an estimated 4,985 new employee opportunities that are separated into Retail, Office, Civic and Industrial as shown in **Table 8**.

Table 8: New Non-Residential Data (2020-2040)

Employment Type	% New Employment	New Employment
Retail	20%	997
Office	40%	1,994
Civic	10%	498
Industrial	30%	1,495
Total		4,985

Determine Length of New Roadway Based on Typical Land Use

Using the growth provided for residential and non-residential, the length of new roadways can be estimated using typical sizing for land uses in the County. For this analysis, the density per acre for residential as well as the typical roadway sizing for Local, Collector, and Arterial roadways in the county. Specifically, the analysis looked at land uses and densities for single family and multi-family homes to determine the gross acreage for each additional residential unit. For new households the Gross Acreage is 3,169 for incorporated cities and 4,498 for unincorporated areas, as shown in **Table 9**.

Table 9: Total Gross Acres of Residential Growth (2020-2040)

Community	New Population	New Households	Gross Acres
Total Incorporated	45,234	15,716	2,951
Total Unincorporated	2,616	945	4,498

Community	New Population	New Households	Gross Acres
Total	47,850	16,661	7,749

The square feet per employee type was multiplied and converted into acreage needed for non-residential uses. **Table 10** shows the total gross acres required for employee growth based on typical spacing per employee.

Table 10: Total Gross Acres of Non-Residential Growth (2020-2040)

Employment Type	New Employment	S.F. per Employee	Gross Acres
Retail	997	450	49.6
Office	1,994	200	34.0
Civic	498	333	20.3
Industrial	1,495	1,000	114.4
Total	4,985		218.3

Good transportation planning practices place roadways in as close to a grid system as possible with proper spacing between Collector and Arterial roadways. National guidance from the Federal Highway Administration (FHWA) indicates Collectors should be spaced every $\frac{1}{4}$ - $\frac{1}{2}$ mile with Arterials at $\frac{1}{2}$ - 1 mile. For this analysis, Horrocks will use $\frac{1}{2}$ and 1 mile spacing for Collector and Arterial roadways, respectively.

Also included in the analysis is a factor for each city specifically for “Leapfrog” development. This is to take in to account the variability of where development occurs, since development will not occur directly next to each other. This increases the number of roadway miles needed to connect development together.

Typical roadway Right-of-Way (ROW) widths will also be used to calculate the amount of the gross acres from residential and non-residential development will be used for the allocation of Collector and Arterial roadways. Since the municipalities and unincorporated counties will pay for the upsize from a local roadway to an Arterial or Collector as shown in **Table 11**.

Table 11: Gross Acres per Mile for Roadway Classifications

Classification	ROW Width (ft)	Gross Acres (per mile)	Gross Acres Used (per mile)
Local	60	7.27	0
Collector	80	9.70	2.43
Arterial	100	12.12	4.85

Arterials and Collector roadways will be built differently depending on their location based on City or County standards. To best estimate impacts throughout the County, there are three types of roadways that will be used, listed below. The designation for each City is included in **Table 12**:

Type 1: Urban/Suburban Areas (higher density) – Includes roadway, bike lanes/parking, curb & gutter, parkstrip and sidewalks fit within a concise area to preserve space for higher density development

Type 2: Rural Areas (Lower Density) – Similar characteristics to a Type 1 but includes wider side treatments set in areas more suburban rural.

Type 3: County – County roadways with roadway and shoulders and minimal side treatments.

Table 12: Roadway Type for Each Community

Community	Roadway Type	Community	Roadway Type
Logan	Type 1	Mendon	Type 2
North Logan	Type 1	Amalga	Type 2
Hyde Park	Type 1	Paradise	Type 2
Smithfield	Type 1	River Heights	Type 1
Providence	Type 1	Lewiston	Type 2
Hyrum	Type 1	Trenton	Type 2
Nibley	Type 1	Newton	Type 2
Millville	Type 1	Clarkston	Type 2
Richmond	Type 2	Cornish	Type 2
Wellsville	Type 1	County Unincorporated	Type 3

Based on the data discussed above, **Table 13** shows the additional roadway miles required to meet the demands of baseline growth.

Table 13: Length of Roadway Required by Type

Roadway Type	Arterial (mi.)	Collector (mi.)
Type 1	12.63	12.63
Type 2	2.56	2.56
Type 3	N/A	18.36
Total	15.19	33.55

The total cost for new roadways based on current growth trends were calculated based on the total roadway miles of each roadway. **Table 14** shows the total cost per 1,000 population growth for municipalities and unincorporated county.

Table 14: Total Required Roadways and Cost for Growth (2020-2040)

	Total Roadway Length (ft)	Total Roadway Cost	Population Growth	Cost per 1,000 Pop Growth
Municipalities	30.38	\$42,539,700	48,804	\$928,725
Unincorporated County	18.36	\$57,226,000	2,303	\$1,189,556
Total	48.73	\$57,225,961	48,107	\$1,189,556

Impacts on Water Infrastructure and Use

The analysis to determine impacts for Water can be split into two analyses: Infrastructure and Use. Water infrastructure is correlated with the number of roadway miles built. As the roadway miles increases, so does the pipe required to connect new development. Therefore, for roadways within areas with water systems, the length of new Arterial and Collector roadways is also the length of pipe required for waterlines as shown in **Table 15**. This assumes all development will provide waterlines within their development and is not an impact to the Cities or County.

Table 15: Length of Waterline Required for Growth (2020-2040)

Total Length (mi)	Total Length (ft)	Cost per Foot	Total Cost	Cost per 1,000 Pop Growth
30.4	160,382	\$110	\$17,641,970	\$385

Water use is split into irrigation and culinary water as there is one system used for both. Based on the most recent study completed in Cache County (JUB, 2019), Cache County uses 130 gallons per day per person.

Culinary Water Use

Horrocks coordinated with County Staff to determine the demand for water based on current growth trends with the assumption of 130 gallons a day per person. Using the typical household size per residential type, **Table 16** shows a summary for municipalities and unincorporated county water use in MGD.

Table 16: Residential Culinary Water Use for Current Growth Trends

Residential Type	Municipalities (MGD)	Unincorporated County (MGD)
Single Family	4.86	0.31
Townhome	0.86	0.00
Multi-Family	0.50	0.00
Total	6.23	0.31

Analysis for non-residential uses was completed using a similar methodology by reviewing the total number of employees calculated in **Table 8**. The additional input was to determine the total gallons of water use per day for each non-residential use and is included in **Table 17**.

Table 17: Non- Residential Culinary Water Use for Current Growth Trends

Non-Residential Type	Water Use (GPD)	Municipalities (MGD)	Unincorporated County (MGD)
Retail	80	0.26	0.00
Office	80	0.03	0.00
Civic	80	0.02	0.00
Industrial	130	0.05	0.00
Total		0.37	0.00



Irrigation Water Use

Horrocks coordinated with County staff to determine irrigation water depending on the average lot size and approximate irrigation acreage per residential use type as shown in **Table 18**.

Table 18: Residential Irrigation Water Use for Current Growth Trends

Residential Type	Municipalities (Acre-ft)	Unincorporated County (Acre-ft)
Single Family	5,597.70	513.19
Townhome	207.95	0.00
Multi-Family	57.67	0.00
Total	5,863.33	513.19

County staff helped Horrocks to determine the rate of irrigation water use by providing the percentage of the non-residential uses that would be irrigated. As part of this analysis, additional uses that typically use significant irrigation water were added with schools, churches, and parks. **Table 19** shows a summary of the non-residential irrigation water use.

Table 19: Non- Residential Culinary Water Use for Current Growth Trends

Non-Residential Type	% Acreage Irrigated	Municipalities (Acre-ft)	Unincorporated County (Acre-ft)
Retail	12	18.01	0.00
Office	15	9.54	0.00
Civic	20	9.86	0.00
Industrial	15	27.77	0.00
Schools	47	43.17	0.00
Churches	20	62.55	3.67
Parks	75	330.95	19.67
Total		501.85	23.34

Water Source Summary

To summarize, **Table 20** includes the total water use for indoor and irrigation for the Cities and Unincorporated County.

Table 20: Total Water Use by New Growth (2020-2040)

Jurisdiction	Culinary Use (MGD)	Irrigation Use (MGD)
Municipalities	6.59	5.67
Unincorporated County	0.31	0.02
Total	6.90	5.69

Impacts on Sewer Infrastructure

The sewer infrastructure is correlated with the number of roadway miles built that include sewer infrastructure. As the roadway miles increases, so does the pipe required to connect new development. Therefore, for roadways within areas with sewer systems, the length of new Arterial and Collector roadways is also the length of pipe required for waterlines for areas with sewer systems. **Table 21** shows the total cost per 1,000 population growth based on the total length of roadway with anticipated sewer pipe installed. It is assumed that the municipalities in charge of the sewer infrastructure will implement the mitigations necessary to provide appropriate treatment for the sewer demand.

Table 21: Length of Sewer Lines Required for Growth (2020-2040)

Total Length (mi)	Total Length (ft)	Cost per Foot	Total Cost	Cost per 1,000 Pop Growth
79.5	419,522	\$200	\$26,679,981	\$582

Impacts on Fire and EMS

Fire and EMS are correlated with the population growth. To determine the required deputized and part-time staff to serve future need, it is assumed that the same proportion of current deputized and part-time staff and population will be met in the future. **Table 22** shows that to meet the future population demand for Fire and EMS, Cache County will need 32 Deputized Staff and 7 Part-Time Staff totaling 38 staff which will cost \$551 per 1,000 population growth.

Table 22: Impact on Fire and EMS

Jurisdiction	Existing Staff	Existing Population	Staff/Existing Population	Future Population	Future Need	Cost per Staff (Average)	Cost per 1,000 Pop Growth
Deputized Staff	20	5,657	1/283	7,960	29	\$102,929	\$402
Part-Time Staff	4		1,415		6		
Total	24		1/236		35		

Impacts on Law Enforcement (Sherriff)

Law Enforcement is correlated with the population growth. To determine the required deputized and part-time staff to serve future need, it is assumed that the same proportion of current deputized and part-time staff and population will be met in the future. **Table 23** shows that to meet the future

population demand for Fire and EMS, Cache County will need 210 Deputized Staff and 11 Part-Time Staff totaling 221 staff which will cost \$3,892 per 1,000 population growth.

Table 23: Impact on Law Enforcement (Sherriff)

Jurisdiction	Existin g Staff	Existing Population	Staff/Existing Population	Future Population	Future Need	Cost per Staff (Average)	Cost per 1,000 Pop Growth
Deputized Staff	135	136,132	1/36	183,982	183	\$102,929	\$551
Part-Time Staff	7		1/678		10		
Total	142		1/34		193		

SUMMARY

Looking at current trends, the impact can be summarized looking at the cost per 1,000 population growth as shown in **Table 20**.

Table 24: Summary of Impact from Current Trends

Jurisdiction	Municipal Cost per 1,000 Pop Growth	Unincorporated County Cost per 1,000 Population Growth
Roadway	\$928,725	\$1,189,556
Waterline	\$385	NA
Sewerline	\$582	NA
Fire and EMS	NA	\$402
Law Enforcement	NA	\$551
Total (per 1,000 pop)	\$929,692	\$1,190,509

SCENARIO 2: GROWTH OUTWARD FROM CITIES

This scenario utilizes the methodology used to determine the baseline growth and impact with different growth assumptions. This growth scenario looks as focusing growth at the current municipal boundaries and grows outward from there, reducing leapfrog type development. Horrocks worked with Cache County staff to review and make updates to the following assumptions:

County-wide Population Growth – Discussion on any Growth changes

Residential Units – Discussion in detail on what changes within the household types

Non-Residential Uses – Discussion on what changes for non-residential uses

Roadway Calculations – Discussion on what changes for how roadway lengths were calculated

Landscape Water Use – Discussion on what changes for how roadway lengths were calculated

Indoor Water Use – Discussion on what changes for how roadway lengths were calculated

Impacts on Roadway Infrastructure

The amount of roadway infrastructure needed to meet the demands for this growth scenario were analyzed using the above assumptions. By growing outward from the municipal boundaries, it reduces the length of roadways needed and is summarized in **Table 25**.

Table 25: Length of Roadway Required by Type for Growth Outward from Cities

	Total Roadway Length (ft)	Total Roadway Cost	Population Growth	Cost per 1,000 Pop Growth
Municipalities	22.70	\$31,993,885	45,804	\$698,489
Unincorporated County	9.80	\$7,837,819	2,303	\$3,403,921
Total	32.49	\$39,831,704	48,107	\$827,981

Impacts on Water Infrastructure and Source

The impact on water infrastructure shows a similar decrease since the cost is attributed to the total length of roadway as shown in **Table 26**.

Table 26: Length of Waterline Required by Type for Growth Outward from Cities

Total Length (mi)	Total Length (ft)	Cost per Mile	Total Cost	Cost per 1,000 Pop Growth
22.7	119,834	\$110	\$13,181,735	\$288

For irrigation and indoor water use, **Table 27** includes the total water use for indoor and irrigation for the Cities and Unincorporated County using the updated assumptions.

Table 27: Total Water Use by New Growth Outward from Cities

Jurisdiction	Culinary Use	Irrigation Use
Municipalities	6.59	0.31
Unincorporated County	0.31	0.48
Total	6.90	0.79

Impacts on Sewer Infrastructure

The impact on water infrastructure shows a similar decrease since the cost is attributed to the total length of roadway as shown in **Table 28**.

Table 28: Length of Sewer Lines Required for Growth Outward from Cities

Total Length (mi)	Total Length (ft)	Cost per Mile	Total Cost	Cost per 1,000 Pop Growth
18.0	95,994	\$200	\$19,198,872	\$419

Impacts on Fire and EMS

For growth outward from Cities, **Table 29** shows that to meet the future population demand for Fire and EMS, Cache County will need 29 Deputized Staff and 6 Part-Time Staff totaling 35 staff which will cost \$402 per 1,000 population growth.

Table 29: Impact on Fire and EMS for Growth Outward from Cities

Jurisdiction	Existing Staff	Existing Population	Staff/Existing Population	Future Population	Future Need	Cost per Staff (Average)	Cost per 1,000 Pop Growth
Deputized Staff	20	5,657	1/283	7,960	29	\$102,929	\$402
Part-Time Staff	4		1,415		6		
Total	24		1/236		35		

Impacts on Law Enforcement (Sherriff)

For growth outward from cities, **Table 30** shows that to meet the future population demand for Fire and EMS, Cache County will need 183 Deputized Staff and 10 Part-Time Staff totaling 193 staff which will cost \$551 per 1,000 population growth.

Table 30: Impact on Law Enforcement (Sherriff) for Growth Outward from Cities

Jurisdiction	Existing Staff	Existing Population	Staff/Existing Population	Future Population	Future Need	Cost per Staff (Average)	Cost per 1,000 Pop Growth
Deputized Staff	135	136,132	1/36	183,982	183	\$102,929	\$551
Part-Time Staff	7		1/678		10		
Total	142		1/34		193		

SUMMARY

Looking at growth outward from cities, the impact and change from current trends can be summarized looking at the cost per 1,000 population growth as shown in **Table 31**.

Table 31: Summary of Impact for Growth Outward from Cities

Jurisdiction	Municipal Cost per 1,000 Pop Growth (CHANGE)	Unincorporated County Cost per 1,000 Population Growth
Roadway	\$698,489 (-\$230,236)	\$3,403,921 (\$2,214,365)
Waterline	\$288 (-\$97)	NA
Sewerline	\$419 (-\$163)	NA
Fire and EMS	NA	\$402 (\$0)
Law Enforcement	NA	\$551 (\$0)
Total (per 1,000 pop)	\$1,520,009 (-\$230,496)	\$9,547,778 (\$2,214,365)

SCENARIO 3: GROWTH IN RURAL AREAS

This scenario utilizes the methodology used to determine the baseline growth and impact with different growth assumptions. This growth scenario looks as focusing growth within the rural areas of the county. Horrocks worked with Cache County staff to review and make updates to the following assumptions:

County-wide Population Growth – Discussion on any Growth changes

Residential Units – Discussion in detail on what changes within the household types

Non-Residential Uses – Discussion on what changes for non-residential uses

Roadway Calculations – Discussion on what changes for how roadway lengths were calculated

Landscape Water Use – Discussion on what changes for how roadway lengths were calculated

Indoor Water Use – Discussion on what changes for how roadway lengths were calculated

Impacts on Roadway Infrastructure

The amount of roadway infrastructure needed to meet the demands for this growth scenario were analyzed using the above assumptions. By growing outward from the municipal boundaries, it reduces the length of roadways needed and is summarized in **Table 32**.

Table 32: Length of Roadway Required by Type for Growth in Rural Areas

	Total Roadway Length (ft)	Total Roadway Cost	Population Growth	Cost per 1,000 Pop Growth
Municipalities	19.42	\$27,375,317	45,804	\$597,657
Unincorporated County	2.86	\$2,289,081	2,303	\$994,135
Total	22.28	\$29,664,398	48,107	\$616,634

Impacts on Water Infrastructure and Source

The impact on water infrastructure shows a similar decrease since the cost is attributed to the total length of roadway as shown in **Table 33**.

Table 33: Length of Roadway Required by Type for Growth in Rural Areas

Total Length (mi)	Total Length (ft)	Cost per Mile	Total Cost	Cost per 1,000 Pop Growth
19.4	102,515	\$110	\$11,2786,644	\$246

For irrigation and indoor water use, **Table 34** includes the total water use for indoor and irrigation for the Cities and Unincorporated County using the updated assumptions.

Table 34: Total Water Use by New Growth in Rural Areas

Jurisdiction	Culinary Use	Irrigation Use
Municipalities	6.59	0.31
Unincorporated County	5.67	0.48
Total	12.26	0.79

Impacts on Sewer Infrastructure

The impact on water infrastructure shows a similar decrease since the cost is attributed to the total length of roadway as shown in **Table 35**.

Table 35: Length of Sewer Lines Required for Growth in Rural Areas

Total Length (mi)	Total Length (ft)	Cost per Mile	Total Cost	Cost per 1,000 Pop Growth
16	82,027	\$200	\$16,405,325	\$358

Impacts on Fire and EMS

For growth outward from Cities, **Table 36** shows that to meet the future population demand for Fire and EMS, Cache County will need 29 Deputized Staff and 6 Part-Time Staff totaling 35 staff which will cost \$402 per 1,000 population growth.

Table 36: Impact on Fire and EMS for Growth in Rural Areas

Jurisdiction	Existing Staff	Existing Population	Staff/Existing Population	Future Population	Future Need	Cost per Staff (Average)	Cost per 1,000 Pop Growth
Deputized Staff	20	5,657	1/283	7,960	29	\$102,929	\$402
Part-Time Staff	4		1,415		6		
Total	24		1/236		35		

Impacts on Law Enforcement (Sherriff)

For growth outward from cities, **Table 37** shows that to meet the future population demand for Fire and EMS, Cache County will need 183 Deputized Staff and 10 Part-Time Staff totaling 193 staff which will cost \$551 per 1,000 population growth.

Table 37: Impact on Law Enforcement (Sherriff) for Growth in Rural Areas

Jurisdiction	Existing Staff	Existing Population	Staff/Existing Population	Future Population	Future Need	Cost per Staff (Average)	Cost per 1,000 Pop Growth
Deputized Staff	135	136,132	1/36	183,982	183	\$102,929	\$551
Part-Time Staff	7		1/678		10		
Total	142		1/34		193		

SUMMARY

Looking at growth in rural areas, the impact and change from current trends can be summarized looking at the cost per 1,000 population growth as shown in **Table 38**.

Table 38: Summary of Impact for Growth in Rural Areas

Jurisdiction	Municipal Cost per 1,000 Pop Growth (CHANGE)	Unincorporated County Cost per 1,000 Population Growth
Roadway	\$597,657 (-\$331,068)	\$994,135 (-\$195,421)
Waterline	\$246 (-\$139)	NA
Sewerline	\$358 (-\$224)	NA
Fire and EMS	NA	\$402 (\$0)
Law Enforcement	NA	\$551 (\$0)
Total (per 1,000 pop)	\$598,261 (-\$331,431)	\$995,087 (-\$195,422)

SCENARIO 4: GROWTH IN EMERGING AREAS

This scenario utilizes the methodology used to determine the baseline growth and impact with different growth assumptions. This growth scenario looks as focusing growth within the rural areas of the county. Horrocks worked with Cache County staff to review and make updates to the following assumptions:

County-wide Population Growth – Discussion on any Growth changes

Residential Units – Discussion in detail on what changes within the household types

Non-Residential Uses – Discussion on what changes for non-residential uses

Roadway Calculations – Discussion on what changes for how roadway lengths were calculated

Landscape Water Use – Discussion on what changes for how roadway lengths were calculated

Indoor Water Use – Discussion on what changes for how roadway lengths were calculated

Impacts on Roadway Infrastructure

The amount of roadway infrastructure needed to meet the demands for this growth scenario were analyzed using the above assumptions. By growing outward from the municipal boundaries, it reduces the length of roadways needed and is summarized in **Table 39**.

Table 39: Length of Roadway Required by Type for Growth in Emerging Areas

Total Length (mi)	Total Length (ft)	Cost per Mile	Total Cost
19.8	104,593	\$XX	\$XX

Impacts on Water Infrastructure and Source

The impact on water infrastructure shows a similar decrease since the cost is attributed to the total length of roadway as shown in **Table 40**.

Table 40: Length of Roadway Required by Type for Growth in Emerging Areas

Total Length (mi)	Total Length (ft)	Cost per Mile	Total Cost
19.8	104,593	\$XX	\$XX

For irrigation and indoor water use, **Table 41** includes the total water use for indoor and irrigation for the Cities and Unincorporated County using the updated assumptions.

Table 41: Total Water Use by New Growth in Emerging Areas

Jurisdiction	Culinary Use	Irrigation Use
Municipalities	10.37	4,783.80
Unincorporated County	0.56	2,047.7

Jurisdiction	Culinary Use	Irrigation Use
Total	10.93	6,831.5

Impacts on Sewer Infrastructure

The impact on water infrastructure shows a similar decrease since the cost is attributed to the total length of roadway as shown in **Table 42**.

Table 42: Length of Sewer Lines Required for Growth in Emerging Areas

Total Length (mi)	Total Length (ft)	Cost per Mile	Total Cost
17.9	94,632	\$XX	\$XX

Impacts on Fire and EMS

For growth outward from Cities, **Table 43** shows that to meet the future population demand for Fire and EMS, Cache County will need 29 Deputized Staff and 6 Part-Time Staff totaling 35 staff which will cost \$402 per 1,000 population growth.

Table 43: Impact on Fire and EMS for Growth in Emerging Areas

Jurisdiction	Existing Staff	Existing Population	Staff/Existing Population	Future Population	Future Need	Cost per Staff (Average)	Cost per 1,000 Pop Growth
Deputized Staff	135	136,132	1/36	183,982	183	\$102,929	\$551
Part-Time Staff	7		1/678		10		
Total	142		1/34		193		

Impacts on Law Enforcement (Sherriff)

For growth in emerging areas, **Table 44** shows that to meet the future population demand for Fire and EMS, Cache County will need 183 Deputized Staff and 10 Part-Time Staff totaling 193 staff which will cost \$551 per 1,000 population growth.

Table 44: Impact on Law Enforcement (Sherriff) for Growth in Emerging Areas

Jurisdiction	Existing Staff	Existing Population	Staff/Existing Population	Future Population	Future Need	Cost per Staff (Average)	Cost per 1,000 Pop Growth
Deputized Staff	135	136,132	1/36	183,982	183	\$102,929	\$551
Part-Time Staff	7		1/678		10		
Total	142		1/34		193		

SUMMARY

Looking at growth in emerging areas, the impact and change from current trends can be summarized looking at the cost per 1,000 population growth as shown in **Table 45**.

Table 45: Summary of Impact for Growth in Emerging Areas

Jurisdiction	Municipal Cost per 1,000 Pop Growth (CHANGE)	Unincorporated County Cost per 1,000 Population Growth
Roadway	\$1,517,923 (CHANGE)	\$9,546,676 (CHANGE)
Waterline	\$1,066 (CHANGE)	NA
Water Source	\$xx (CHANGE)	\$xx (CHANGE)
Sewerline	\$1,020 (CHANGE)	NA
Fire and EMS	NA	\$551 (CHANGE)
Law Enforcement	NA	\$551 (CHANGE)
Total (per 1,000 pop)	\$1,520,009 (CHANGE)	\$9,547,778 (CHANGE)

APPENDIX B. COST-OF-SERVICE MODEL

Background

Zions Public Finance, Inc. created a cost-of-service model that provides the County with the ability to forecast varying growth scenarios, with specific fiscal impacts of various development types (i.e., residential, retail, office, industrial, hotel), densities of development, valuation and pricing of development, and geographic distance from existing core service centers. Sensitivity analysis can be conducted by changing numerous inputs in the model, including:

- Inflation rates
- Property tax increases
- Revenue growth rates (i.e., sales tax revenues, road funds, etc.)
- Growth in personnel and department costs
- Development absorption rates
- Market and taxable values of various types of development
- Fixed v. variable costs of service provision
- Density of development (dwelling units per acre, floor area ratios)
- Geographic distance from core service centers

The information gained from this complex model is summarized on a “Summary” tab in Excel and provides the following information to the County in its decision making:

- Net operating revenues by year
- Fiscal impacts of new development
- Net revenues per acre

The consultants have met with the County on several occasions to demonstrate how the model works and are providing the Excel model to the County as part of this study.

Scenario Analysis

The consultants have analyzed development in Cache County under a variety of scenarios, a few of which are included in this summary of the cost-of-service model:

- Residential v. commercial development
- Density of residential development
- Home prices per unit
- Geographic location in terms of distance from core services

The analysis shows positive fiscal impact trends resulting from the following factors:

- Commercial development
- Higher home prices and valuation for tax purposes
- Development in geographic locations closer to existing core services
- Higher density development

Negative fiscal impact trends are more closely related to:

- Lower-value residential development
- Development in geographic locations further removed from core service areas
- Lower density development

All scenarios are analyzed in comparison to the “Base Case Scenario” which includes the following assumptions for residential development as well as the assumption of 50 single-family and 50 multi-family residential units absorbed per year.

TABLE 1: BASE CASE ASSUMPTIONS

	Central	Periphery	Emerging
Variations by Area	Area 1	Area 2	Area 3
Single-Family Residential Value	110%	100%	90%
Multi-Family Residential Value	110%	100%	90%
Single-Family Residential Value	\$495,000	\$450,000	\$405,000
Multi-Family Residential Value	\$242,000	\$220,000	\$198,000
Single-Family Units per Acre	4	4	4
Multi-Family Units per Acre	12	12	12

Scenarios are further analyzed by 3 geographic locations as follows:

- Central – Area 1: within 0.5 miles of existing services
- Periphery – Area 2: within 1 mile of existing services
- Emerging – Area 3: within 3 miles of existing services

Summary of Case Scenarios

While thousands of scenarios can be run with the Excel model, a comparison of a few scenarios analyzed in this report is shown in the table below:

TABLE 2: SUMMARY COMPARISON OF SCENARIOS – NET REVENUES PER ACRE

Net Revenues per Acre	Year 1	Year 5
Distance Analysis		
1 - Central; residential only; SF 4 units per acre; MF 12 units per acre	\$575	\$253
2 - Periphery; residential only; SF 4 units per acre; MF 12 units per acre	\$377	\$52
3 - Emerging; residential only; SF 4 units per acre; MF 12 units per acre	\$42	(\$290)
Development Type Analysis		
1 - Central; residential - SF 4 units per acre, MF 12 units per acre; 2 acres per year of retail and office	\$1,967	\$1,654
Density Analysis		
1 - Central; residential only; SF 6 units per acre; MF 18 units per acre	\$818	\$332

Net Revenues per Acre	Year 1	Year 5
2 - Periphery; residential only; SF 6 units per acre; MF 18 units per acre	\$500	\$10
3 - Emerging; residential only; SF 6 units per acre; MF 18 units per acre	(\$21)	(\$523)
Pricing Analysis – Increased Valuations		
1 - Central; residential only; SF 4 units per acre; MF 12 units per acre	\$768	\$447
2 - Periphery; residential only; SF 4 units per acre; MF 12 units per acre	\$569	\$246
3 -Emerging; residential only; SF 4 units per acre; MF 12 units per acre	\$235	(\$96)
Pricing Analysis – Decreased Valuations		
1 - Central; residential only; SF 4 units per acre; MF 12 units per acre	\$383	\$58
2 - Periphery; residential only; SF 4 units per acre; MF 12 units per acre	\$184	(\$142)
3 - Emerging; residential only; SF 4 units per acre; MF 12 units per acre	(\$151)	(\$484)

Some of the increasing negative fiscal impacts of development, over time, is attributed to the fact that both the General Fund and Municipal Fund are considered in this analysis. The Municipal Fund does not receive any property tax revenues and no property tax increases are forecast for the General Fund. Given inflationary costs, the County therefore will see decreasing net revenues over time in any development scenario.

Distance

The three scenarios analyzed in this section vary the distance from core services and use the assumptions shown in the table below for property value and densities. All scenarios assume residential development of 50 units of single-family and 50 units of multi-family development per year.

TABLE 3: ASSUMPTIONS

	Central	Periphery	Emerging
Variations by Area	Area 1	Area 2	Area 3
Single-Family Residential Value	110%	100%	90%
Multi-Family Residential Value	110%	100%	90%
Single-Family Residential Value	\$495,000	\$450,000	\$405,000
Multi-Family Residential Value	\$242,000	\$220,000	\$198,000
Single-Family Units per Acre	4	4	4
Multi-Family Units per Acre	12	12	12
Distance to Area - not weighted miles	0.5	1	3

Throughout this report, three areas are listed for a variety of development options. These areas are based on distance from core services.

- Central – Area 1 – 0.5 miles
- Periphery – Area 2 – 1 mile
- Emerging – Area 3 – 3 miles

Results indicate that net revenues decrease over time for all three scenarios due to the inflationary costs projected in the model. In general, because the County has many fixed costs in place, new development and growth benefit the County. However, net revenues decrease over time due to inflationary factors under all scenarios.

TABLE 4: DISTANCE SCENARIO – CENTRAL AREA 1

	Year 1	Year 5
Area	1	1
Single-Family Residential Units Total to Date	50	250
Multi-Family Residential Units Total to Date	50	250
Non-Residential SF Total to Date	0	0
Total Acres Developed	17	83
General Fund Net Revenues	\$12,046	\$49,425
Municipal Services Net Revenues	(\$2,455)	(\$28,372)
TOTAL Net Revenues	\$9,591	\$21,053
Net Revenues per Acre	\$575	\$253

TABLE 5: DISTANCE SCENARIO – PERIPHERY AREA 2

	Year 1	Year 5
Area	2	2
Single-Family Residential Units Total to Date	50	250
Multi-Family Residential Units Total to Date	50	250
Non-Residential SF Total to Date	0	0
Total Acres Developed	17	83
General Fund Net Revenues	\$8,833	\$33,235
Municipal Services Net Revenues	(\$2,556)	(\$28,896)
TOTAL Net Revenues	\$6,277	\$4,340
Net Revenues per Acre	\$377	\$52

TABLE 6: DISTANCE SCENARIO – EMERGING AREA 3

	Year 1	Year 5
Area	3	3
Single-Family Residential Units Total to Date	50	250
Multi-Family Residential Units Total to Date	50	250
Non-Residential SF Total to Date	0	0
Total Acres Developed	17	83
General Fund Net Revenues	\$5,621	\$17,058
Municipal Services Net Revenues	(\$4,919)	(\$41,194)
TOTAL Net Revenues	\$701	(\$24,136)

	Year 1	Year 5
Net Revenues per Acre	\$42	(\$290)

Development Types

The following scenario assumes the addition of 2 acres of retail and 2 acres of office space per year, in addition to the 50 single-family residential and 50 multi-family units shown above. This analysis demonstrates how the addition of commercial development has significant positive fiscal impacts. This analysis is conducted only for the “Central – Area 1” where commercial development is more likely to occur.

TABLE 7: BASE DEVELOPMENT WITH THE ADDITION OF COMMERCIAL DEVELOPMENT

	Year 1	Year 5
Area	1	1
Single-Family Residential Units Total to Date	50	250
Multi-Family Residential Units Total to Date	50	250
Non-Residential SF Total to Date	54,886	274,428
Total Acres Developed	21	103
General Fund Net Revenues	\$21,564	\$97,288
Municipal Services Net Revenues	\$19,089	\$73,646
TOTAL Net Revenues	\$40,653	\$170,934
Net Revenues per Acre	\$1,967	\$1,654

Densities of Development

This section of the report explores the impacts of different densities of development, increasing density on single-family units from 4 to 6 units per acre and from 12 to 18 units per acre for multi-family.

TABLE 8: INCREASED DENSITIES OF DEVELOPMENT – AREA 1

COST PER ACRE ANALYSIS	Year 1	Year 5
Area	1	1
Single-Family Residential Units Total to Date	50	250
Multi-Family Residential Units Total to Date	50	250
Non-Residential SF Total to Date	0	0
Total Acres Developed	11	56
General Fund Net Revenues	\$12,046	\$49,425
Municipal Services Net Revenues	(\$2,960)	(\$30,998)
TOTAL Net Revenues	\$9,086	\$18,427
Net Revenues per Acre	\$818	\$332

TABLE 9: INCREASED DENSITIES OF DEVELOPMENT – AREA 2

COST PER ACRE ANALYSIS	Year 1	Year 5
Area	2	2
Single-Family Residential Units Total to Date	50	250

COST PER ACRE ANALYSIS	Year 1	Year 5
Multi-Family Residential Units Total to Date	50	250
Non-Residential SF Total to Date	0	0
Total Acres Developed	11	56
General Fund Net Revenues	\$8,833	\$33,235
Municipal Services Net Revenues	(\$3,278)	(\$32,655)
TOTAL Net Revenues	\$5,555	\$580
Net Revenues per Acre	\$500	\$10

TABLE 10: INCREASED DENSITIES OF DEVELOPMENT – AREA 3

COST PER ACRE ANALYSIS	Year 1	Year 5
Area	3	3
Single-Family Residential Units Total to Date	50	250
Multi-Family Residential Units Total to Date	50	250
Non-Residential SF Total to Date	0	0
Total Acres Developed	11	56
General Fund Net Revenues	\$5,621	\$17,058
Municipal Services Net Revenues	(\$5,859)	(\$46,087)
TOTAL Net Revenues	(\$239)	(\$29,030)
Net Revenues per Acre	(\$21)	(\$523)

Pricing and Valuation

The pricing and valuation analysis increases unit values from those shown in Table 11, as used in the base assumptions, to the values shown in Table 12.

TABLE 11: BASE RESIDENTIAL PRICING

Unit Type	Central - Area 1	Periphery - Area 2	Emerging - Area 3
Single-Family Residential Value	110%	100%	90%
Multi-Family Residential Value	110%	100%	90%
Single-Family Residential Value	\$495,000	\$450,000	\$405,000
Multi-Family Residential Value	\$242,000	\$220,000	\$198,000

TABLE 12: INCREASED RESIDENTIAL PRICING

Unit Type	Central - Area 1	Periphery - Area 2	Emerging - Area 3
Single-Family Residential Value	120%	110%	100%
Multi-Family Residential Value	120%	110%	100%
Single-Family Residential Value	\$540,000	\$495,000	\$450,000
Multi-Family Residential Value	\$264,000	\$242,000	\$220,000

The increased residential pricing results in positive fiscal impacts to the County.

TABLE 13: PRICING AND VALUATION INCREASED – CENTRAL AREA 1

COST PER ACRE ANALYSIS	Year 1	Year 5
Area	1	1
Single-Family Residential Units Total to Date	50	250
Multi-Family Residential Units Total to Date	50	250
Non-Residential SF Total to Date	0	0
Total Acres Developed	17	83
General Fund Net Revenues	\$15,258	\$65,627
Municipal Services Net Revenues	(\$2,455)	(\$28,372)
TOTAL Net Revenues	\$12,803	\$37,255
Net Revenues per Acre	\$768	\$447

TABLE 14: PRICING AND VALUATION INCREASED – PERIPHERY AREA 2

COST PER ACRE ANALYSIS	Year 1	Year 5	Year 10
Scenario	2	2	2
Single-Family Residential Units Total to Date	50	250	500
Multi-Family Residential Units Total to Date	50	250	500
Non-Residential SF Total to Date	0	0	0
Total Acres Developed	17	83	167
General Fund Net Revenues	\$12,046	\$49,425	\$67,839
Municipal Services Net Revenues	(\$2,556)	(\$28,896)	(\$105,592)
TOTAL Net Revenues	\$9,490	\$20,530	(\$37,752)
Net Revenues per Acre	\$569	\$246	(\$227)

TABLE 15: PRICING AND VALUATION INCREASED – EMERGING AREA 3

COST PER ACRE ANALYSIS	Year 1	Year 5	Year 10
Scenario	3	3	3
Single-Family Residential Units Total to Date	50	250	500
Multi-Family Residential Units Total to Date	50	250	500
Non-Residential SF Total to Date	0	0	0
Total Acres Developed	17	83	167
General Fund Net Revenues	\$8,833	\$33,235	\$35,140
Municipal Services Net Revenues	(\$4,919)	(\$41,194)	(\$131,469)
TOTAL Net Revenues	\$3,914	(\$7,959)	(\$96,329)
Net Revenues per Acre	\$235	(\$96)	(\$578)

If pricing is decreased as shown in the following table, then negative fiscal impacts result.

TABLE 16: DECREASED RESIDENTIAL PRICING

Unit Type	Central - Area 1	Periphery - Area 2	Emerging - Area 3
Single-Family Residential Value	100%	90%	80%
Multi-Family Residential Value	100%	90%	80%
Single-Family Residential Value	\$450,000	\$405,000	\$360,000
Multi-Family Residential Value	\$220,000	\$198,000	\$176,000

TABLE 17: PRICING AND VALUATION DECREASED – CENTRAL AREA 1

COST PER ACRE ANALYSIS	Year 1	Year 5	Year 10
Area	1	1	1
Single-Family Residential Units Total to Date	50	250	500
Multi-Family Residential Units Total to Date	50	250	500
Non-Residential SF Total to Date	0	0	0
Total Acres Developed	17	83	167
General Fund Net Revenues	\$8,833	\$33,235	\$35,140
Municipal Services Net Revenues	(\$2,455)	(\$28,372)	(\$104,489)
TOTAL Net Revenues	\$6,378	\$4,864	(\$69,350)
Net Revenues per Acre	\$383	\$58	(\$416)

TABLE 18: PRICING AND VALUATION DECREASED – PERIPHERY AREA 2

COST PER ACRE ANALYSIS	Year 1	Year 5	Year 10
Area	2	2	2
Single-Family Residential Units Total to Date	50	250	500
Multi-Family Residential Units Total to Date	50	250	500
Non-Residential SF Total to Date	0	0	0
Total Acres Developed	17	83	167
General Fund Net Revenues	\$5,621	\$17,058	\$2,495
Municipal Services Net Revenues	(\$2,556)	(\$28,896)	(\$105,592)
TOTAL Net Revenues	\$3,065	(\$11,838)	(\$103,097)
Net Revenues per Acre	\$184	(\$142)	(\$619)

TABLE 19: PRICING AND VALUATION DECREASED – EMERGING AREA 3

COST PER ACRE ANALYSIS	Year 1	Year 5	Year 10
Area	3	3	3
Single-Family Residential Units Total to Date	50	250	500
Multi-Family Residential Units Total to Date	50	250	500
Non-Residential SF Total to Date	0	0	0
Total Acres Developed	17	83	167
General Fund Net Revenues	\$2,408	\$892	(\$30,095)
Municipal Services Net Revenues	(\$4,919)	(\$41,194)	(\$131,469)
TOTAL Net Revenues	(\$2,511)	(\$40,302)	(\$161,563)
Net Revenues per Acre	(\$151)	(\$484)	(\$969)