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Preliminary Report

**The Impacts of Development:
Assessing Growth in Steamboat Springs**

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Introduction

As residents of Steamboat Springs prepare to cast their votes in the upcoming referendum on the annexation of the Steamboat 700, the debate around town lacks a critical perspective on the issue. Instead of focusing solely on the annexation itself and its potential positive or negative effects, it is helpful to view this option as one of several possible futures for Steamboat Springs. It isn't the measure of the effect itself that we should be concerned about, but rather the comparison of those effects between our different options. Both action and inaction alike will bring changes to our community, and it is only by opening our minds to these considerations that we can make the most purposeful choice.

Four alternative future scenarios are presented here, which represent the development extent and character of Steamboat Springs in 2030. Accompanying each is a simple representation of the impacts of that scenario on four characteristics of our community: Open Space, Community Character, Ranching and Farming, and Affordability. *The colored bar graphs represent indicator values for each measured characteristic on unique scales- the values for the different characteristics cannot be directly compared to one another, but the values for the same characteristic can be compared across the scenarios.* Each scenario and their impacts were modeled geospatially, and identical methods were used between scenarios.

The scenarios and impacts presented here do not represent a comprehensive study of every future possibility or characteristic that we care about in Steamboat Springs. They are also not forecasts of the future, and errors would certainly be found under close scrutiny. With an infinite number of potential variables to take into account, and unavoidable data limitations, the best that can be done is to create reasonable abstractions of reality. This is ok however, because the point of this exercise is merely to stimulate thinking across our range of options, lending a new perspective to the debate.

It is also important to mention that this study presents the impacts of different scenarios *as planned*- deciding on misrepresentations or predicting future successes or failures of plans is left to the voters.

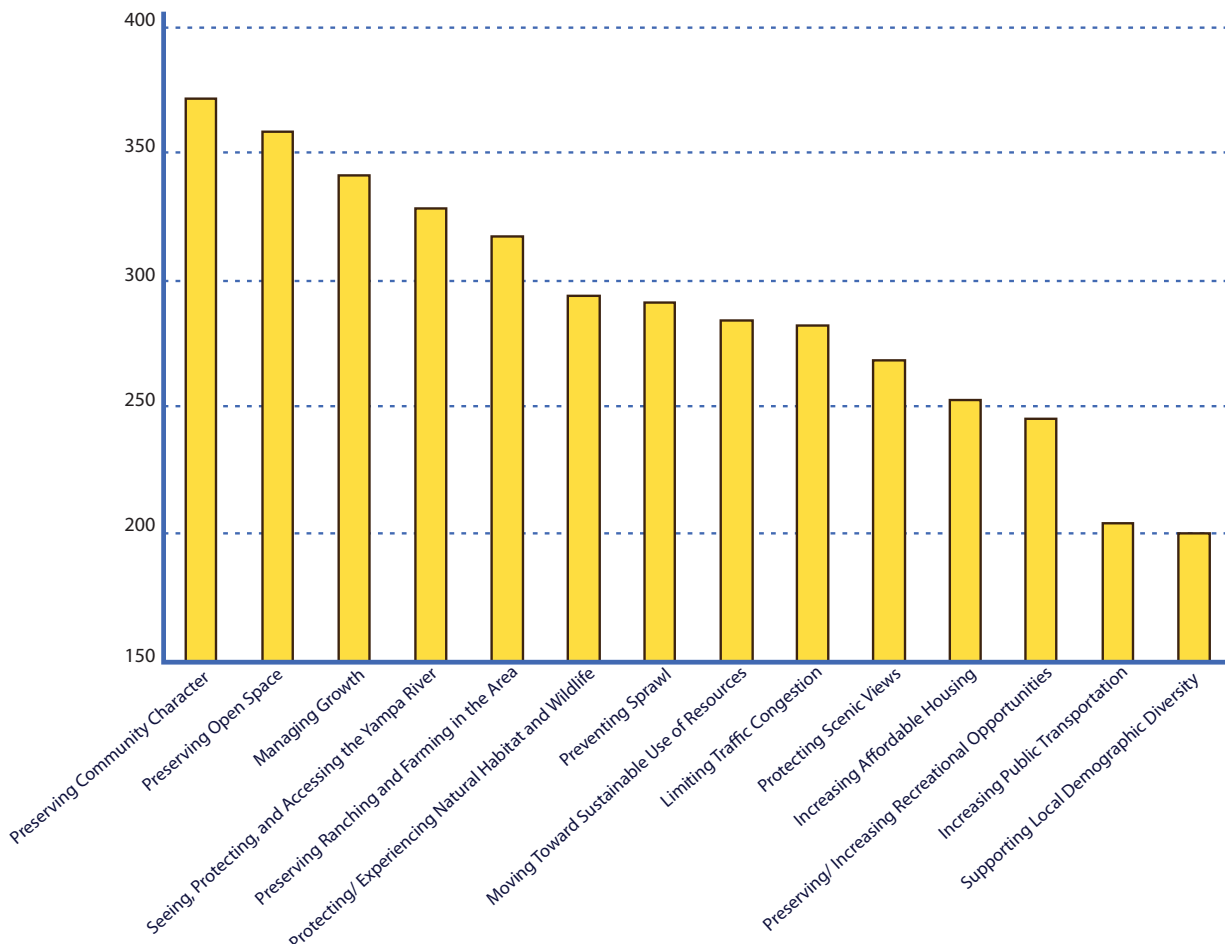
This report is a summary of the initial findings of my thesis project for the Master's in City Planning program at the Department of Urban Studies and Planning at MIT, advised by professor Mike Flaxman. An expanded and refined version of the study will be available in May 2010.

Community Context

This project began with a public community meeting held in Steamboat Springs in January. 140 members of the community were in attendance, and were asked to complete several tasks. The first was to complete a worksheet denoting their opinions about the importance of different goals and assets of our community. The aim of this exercise was to determine what the community cared most about, and therefore where time should be spent in this study. Other results from the meeting will be included in the full report, to be released in May.

The initial results of this polling are shown below, with each item ordered according to the sum of its scores from all attendees' worksheets. After hearing so much heated debate about affordable housing around town, it is interesting how low this goal was ranked. Also note that "Supporting Local Demographic Diversity," which is the end to which affordable housing is the means, is ranked last. Initial regression analysis shows no significant correlation between this low ranking and attendees' age, sex, income, or length of residency.

Working from the data below, the concerns chosen for modeling in the initial phase of this project were "Preserving Community Character," "Preserving Open Space," "Preserving Ranching and Farming in the Area," and "Affordable Housing." Affordable housing was chosen because of its popularity in public debate, Managing Growth was left out because it is largely covered in the open space and community character categories, and concerns about the Yampa river were left out because there were no significant changes in impacts between scenarios.



Assumptions and Background

This study models alternative development futures and their impacts spatially, using GIS as a modeling tool. In some instances, when modeling a non-spatial indicator such as “Community Character,” spatially explicit proxies are used to approximate impacts. A full explanation of the methods used in this study can be found in the last section of this report.

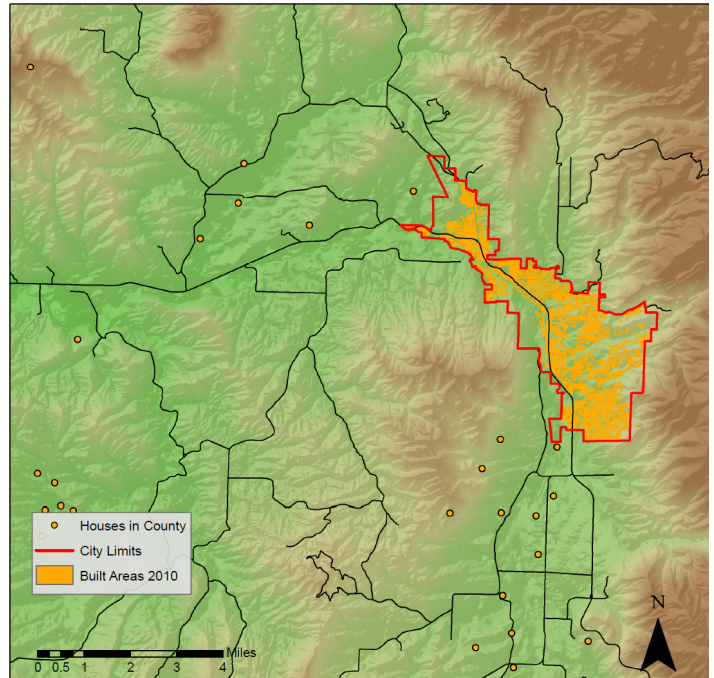
Study Area

This project focuses on the future of Steamboat Springs, but this future is intimately tied to the future of the county as well. Studying the future of the entire county is beyond the scope of this project, so a smaller area had to be defined that represented “Steamboat Springs” as both a concept and delimited area of residential demand. The study area chosen ranges from beyond Milner to the West, South to the base of Rabbit Ears Pass and Lake Catamount, and North to Mad Creek. This area presents a reasonable limit to where if someone lives outside its boundaries, they live “out of Steamboat Springs.”

Future Population Growth

The future population growth of Steamboat Springs is debatable. Rather than using varying population estimates across scenarios however, a single value was held constant in every case. This is because changes in future population have a large effect on the impacts measured in this study. These changes would have clouded the results and made it unclear whether different policies were actually causing different outcomes. The final population estimate chosen reflects a desire to provide the most useful comparisons between different development futures, based on popular assumptions about the future that are driving both the debate around town and the urgency of the issue.

The most recent projection from the Colorado State Demographer’s Office predicted 71% growth in Routt County between 2008-2030. This prediction was made before the current extent of the recession was known however, and so has been discounted by 10% here. Using 2008 numbers, Steamboat Springs represented 51% of the total county population. As-



The Study Area: Steamboat Springs 2010

suming this percentage population share will persist, the discounted State Demographer projection forecasts a population of 18,631 people living in Steamboat Springs in 2030.

This study’s other source of population information comes from the Steamboat Springs Planning Department, using data from the Routt County Building Department and Assessor. An extrapolation of the Planning Department’s numbers reveals an average rate of 200 new housing units per year leading to an expected population of 16,375 people living within city limits by 2030.

Because this study isn’t only modeling population growth within city limits, but within the entire study area, the higher number was chosen to represent the future demand to live “in Steamboat Springs,” meaning anywhere inside the study area. This represents a 2030 population of 18,631 people, and 5,040 new housing units.

Demographics

Steamboat Springs’ current demographic makeup as reported in the 2005-2008 American Community Survey by the Census Bureau was also held constant. Population was broken down by income into low,

middle and high classes, representing 38%, 51%, and 11% of the population respectively. These income groups make less than \$35,000, \$35,000-\$75,000, and \$75,000+ per year. When allocating population growth in the scenarios, a simple willingness-to-pay model was used, where wealthier people get first choice. The Planning Department's estimated vacancy rate of 45% was also held constant, and second-homeowners were given the same allocation priority as the wealthy demographic.

Density

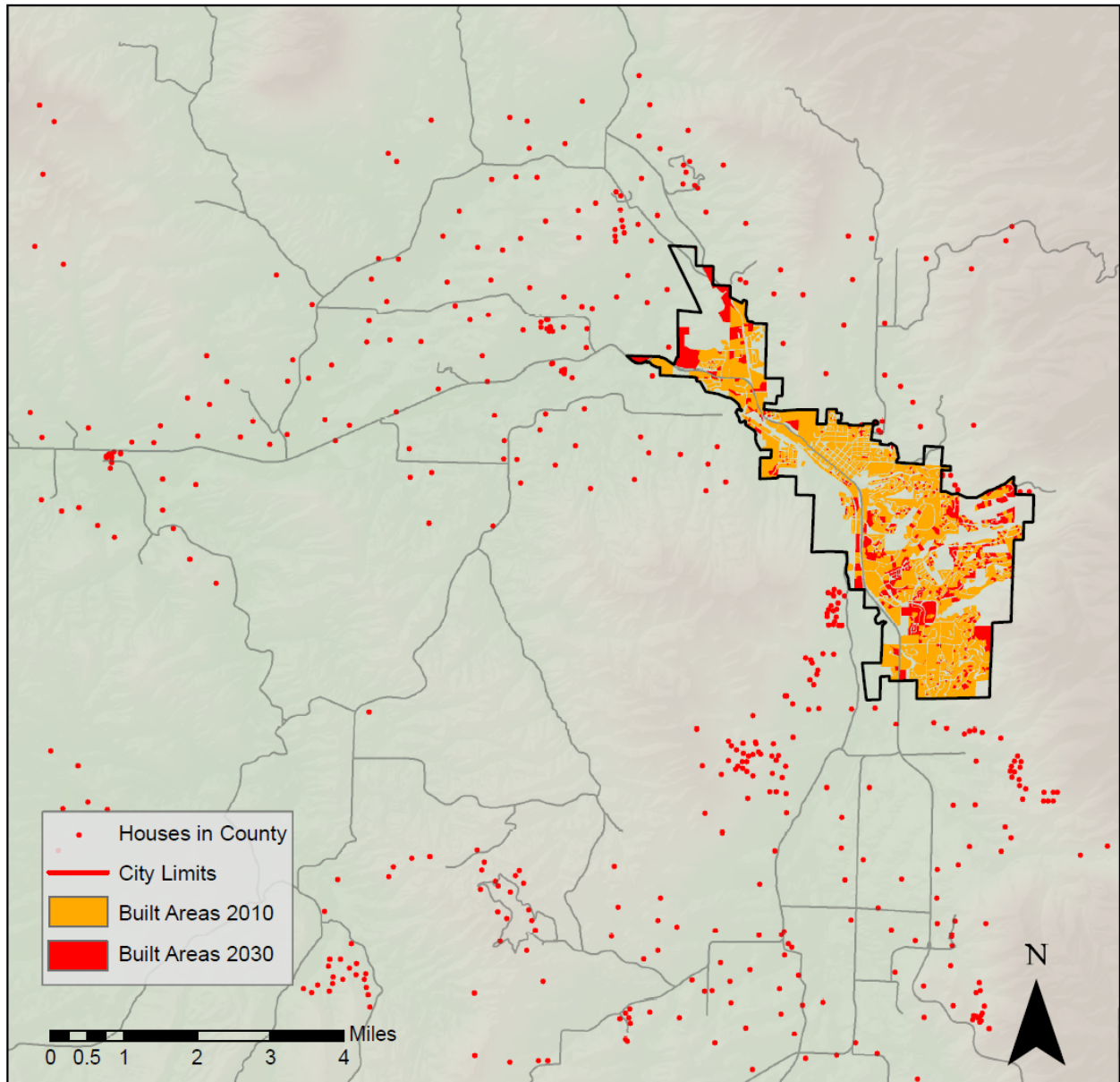
Because this study is measuring growth impacts spatially, the density of new development is an important assumption, because it explains how much area new development will cover. Several density values were used in this study, all averaged across the entire study area.

The first value is for the buildout of existing land entitlements in city limits. The total amount of remaining land resources inside city limits was calibrated with the Planning Department's buildout analysis, which estimated capacity for 2,954 additional housing units as of July 2009, giving an average density of just over 4 units per acre.

This study assumed greenfield development outside of city limits would mimic existing gross density within city limits, at 3.4 units per acre. This value is slightly lower than the one above because it incorporates area for roads and other services.

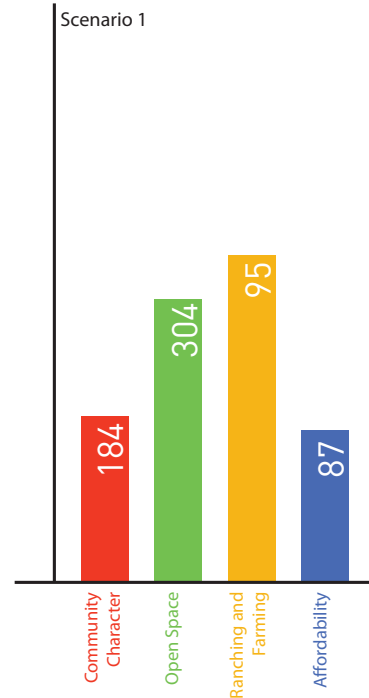
Because the Steamboat 700 has a projected buildout of 2,000 units, that value was used for new development in that project.

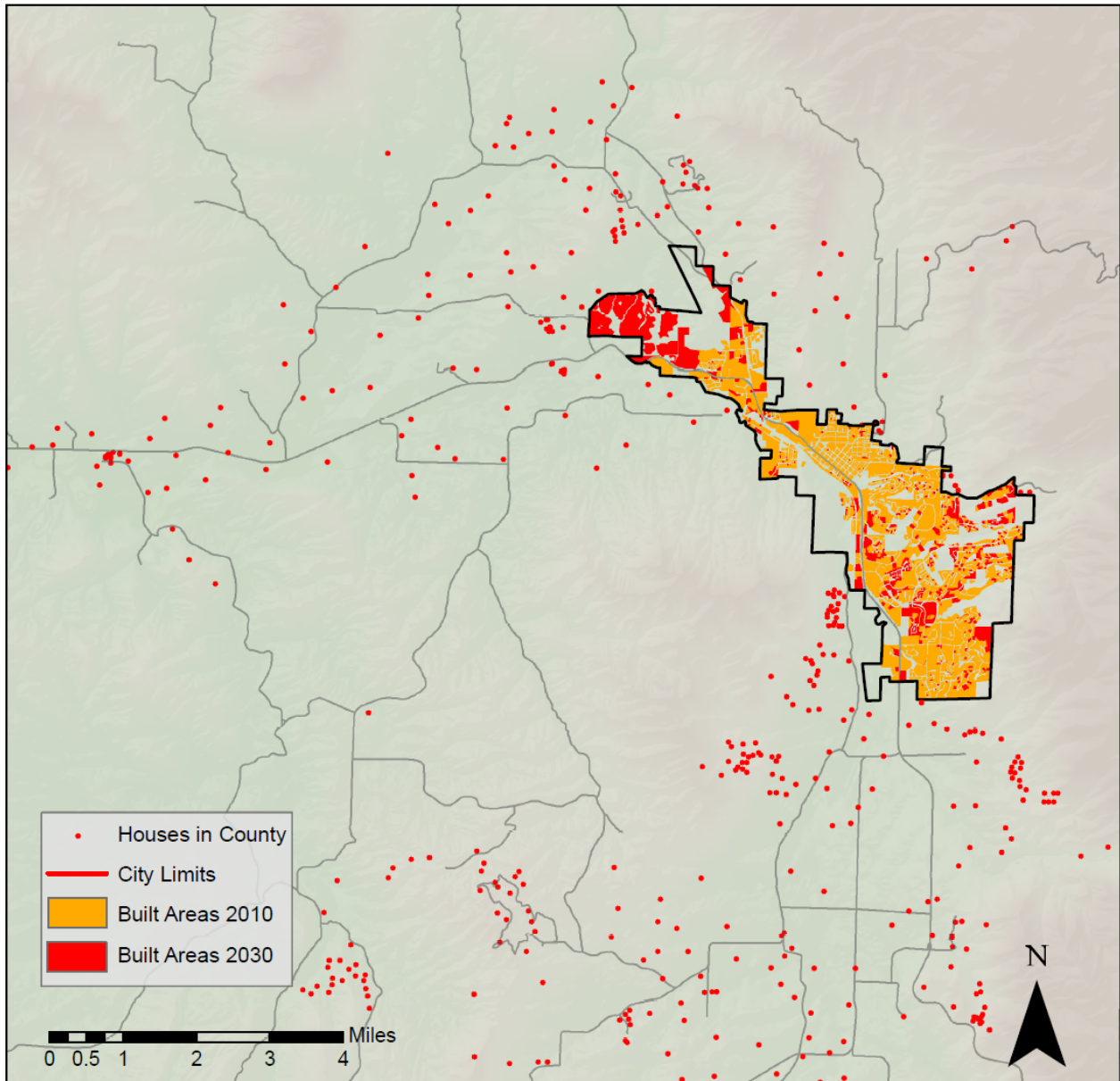
Finally, all new development in the county was allocated at 35 acres per unit, except on existing unbuilt residential parcels of smaller sizes.



Scenario 1: No New Growth Accommodation

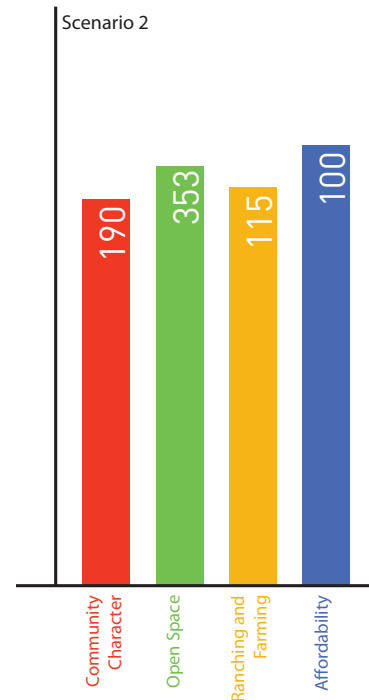
In this scenario, existing vacant lots are allowed to build out, and the county continues subdividing into 35-acre parcels, but no new measures are taken to accommodate growth. Because build-able space runs out inside city limits, more wealthy residents and second homeowners decide to build in the county. Even after the more desirable half of available county lands are completely subdivided, there is no room left in town for 63% of the lower/working class.

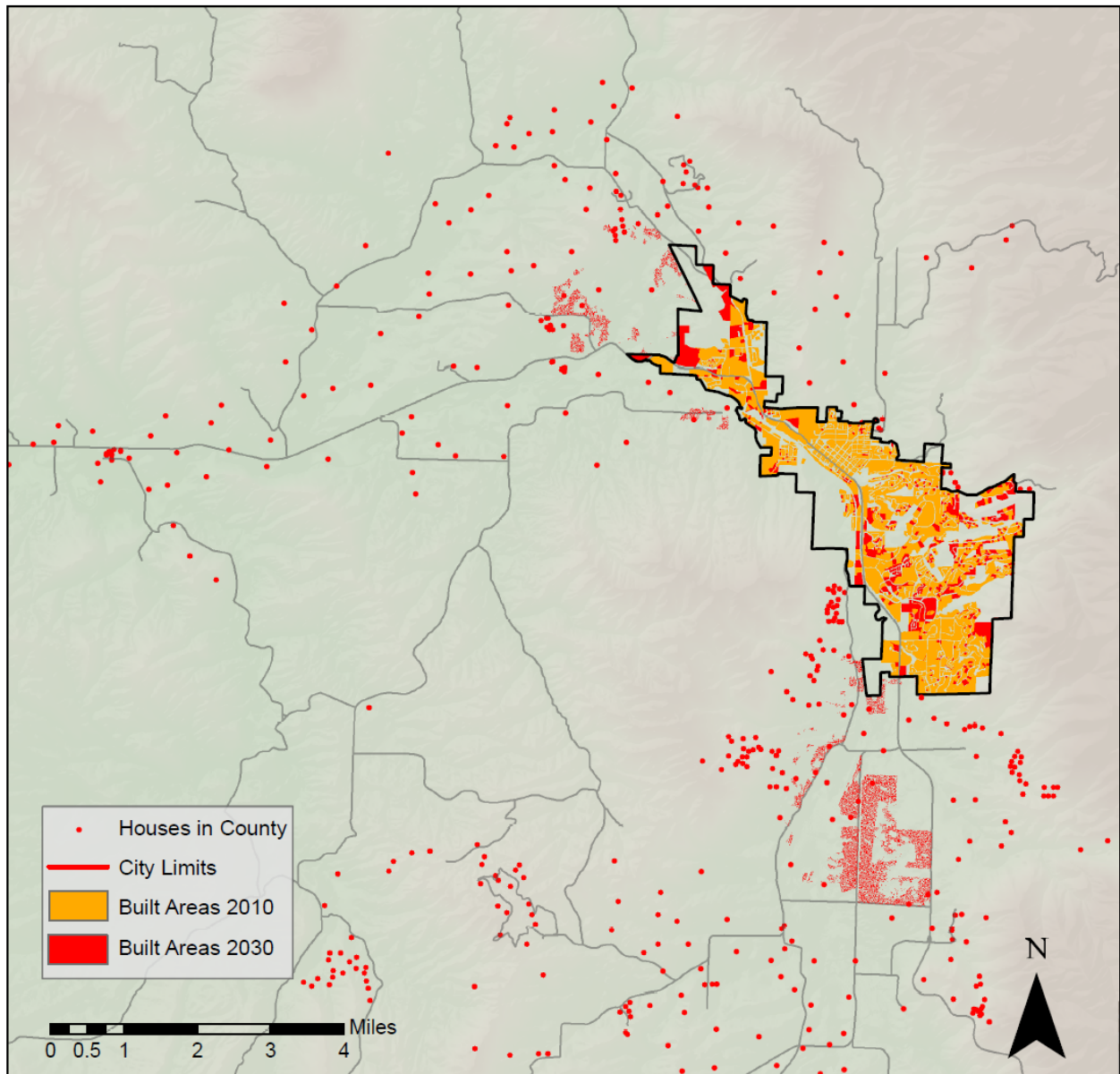




Scenario 2: The Steamboat 700

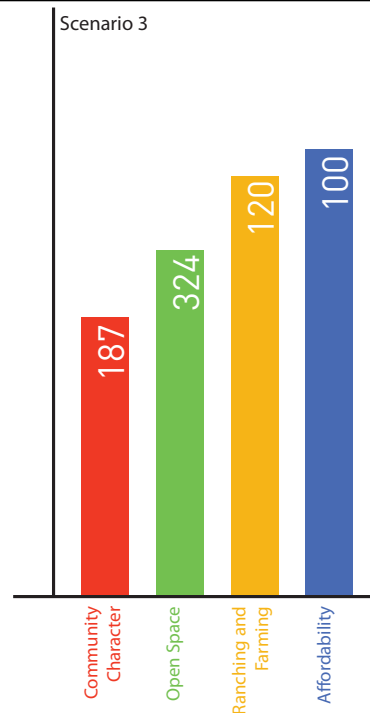
In this scenario, the Steamboat 700 is annexed and building out as planned. This creates more housing supply inside city limits, and wealthy residents and second-homeowners are slightly less inclined to move into the county, so only the most desirable third of available county land is subdivided. Assuming the Steamboat 700 provides space for 2000 new housing units, all population growth is accommodated in this scenario with excess capacity remaining for 500 additional housing units inside city limits.

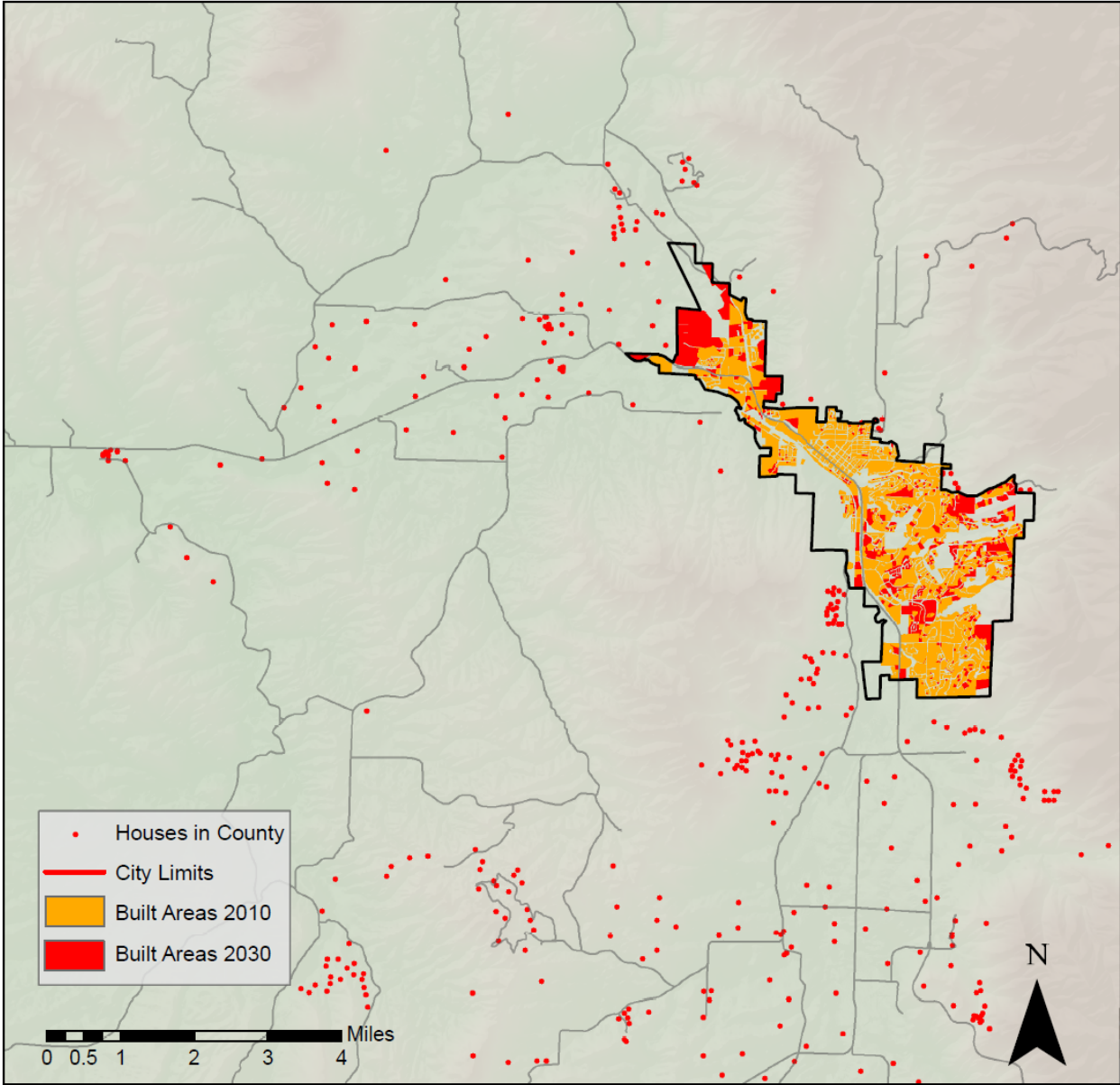




Scenario 3: County Rezoning

In this scenario, the city has taken no new measures to accommodate growth much like in Scenario 1. However, in Scenario 3, the county has decided that the needs of its residents are no longer being sufficiently met, and has taken matters into its own hands. In an attempt to ease the housing supply crisis and bring prices back down, the county rezones areas to the West and South of Steamboat Springs, allowing half-acre development in certain specified areas. In Scenario 3, the top third of available county land is subdivided into 35-acre parcels, Steamboat builds out, and 1177 new housing units are built in the South Valley and West of Steamboat Springs.

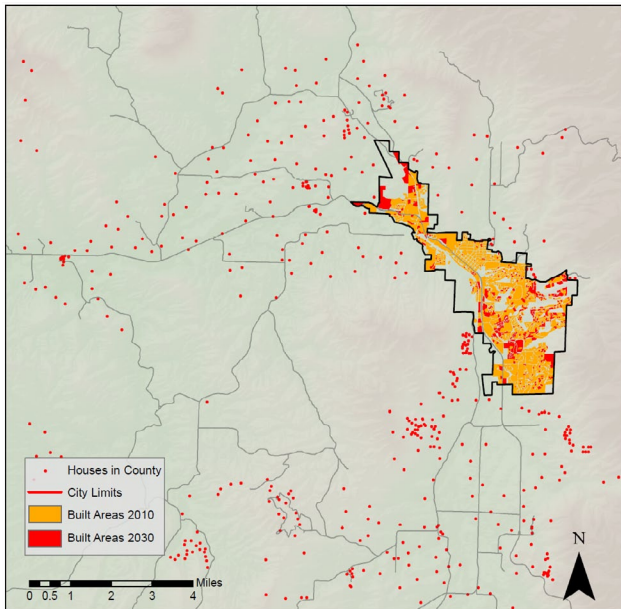




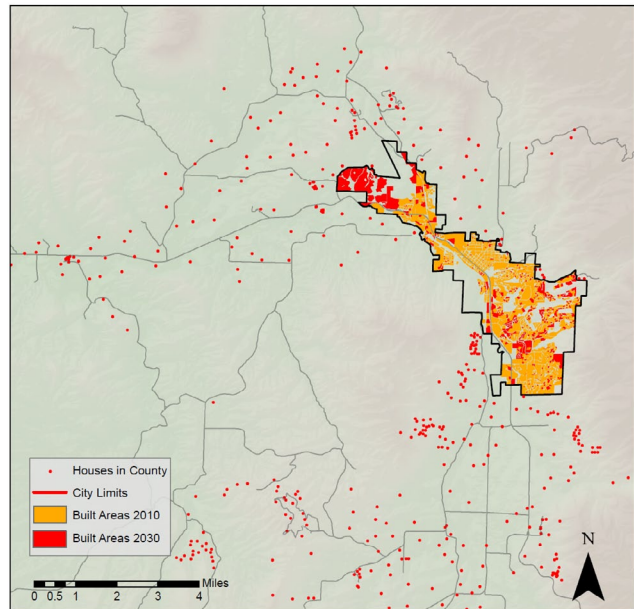
Scenario 4: Infill

In this scenario, as Steamboat Springs builds out, zoning regulations are changed to allow for additional infill development within existing city limits. This infill happens in two ways: first, by rezoning developable land resources within city limits, and second, by allowing more homes to be built in existing neighborhoods. 43% of attendees at the community meeting in January indicated that they would allow another house to be built between them and their neighbor. Assuming this would only apply between single family, duplex, and triplex homes, this represents a space resource for 1317 new units. Because of policies encouraging and easing the choice to live within city limits, only the most desirable 25% of available county lands are subdivided into 35-acre parcels.

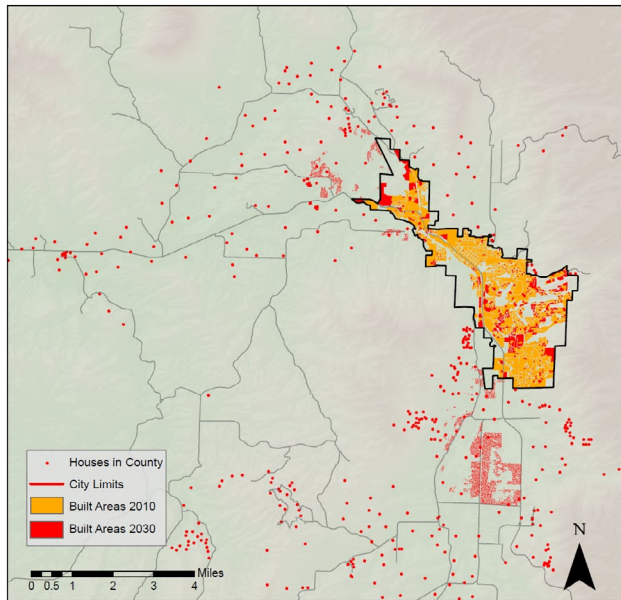




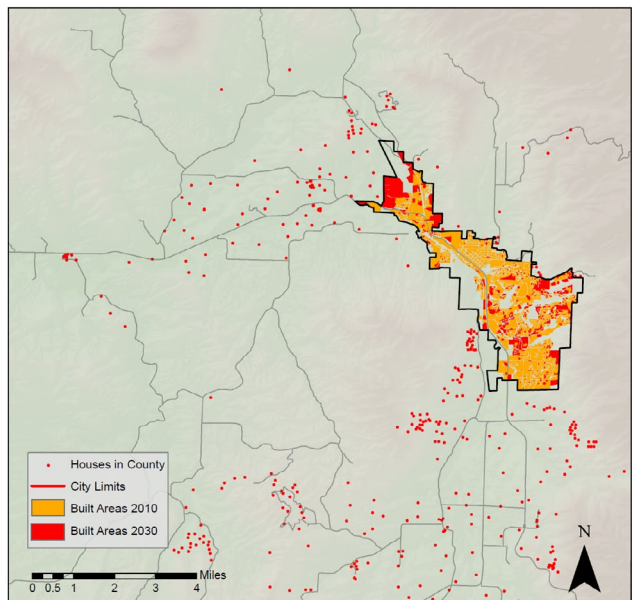
Scenario 1: No New Growth Accommodation



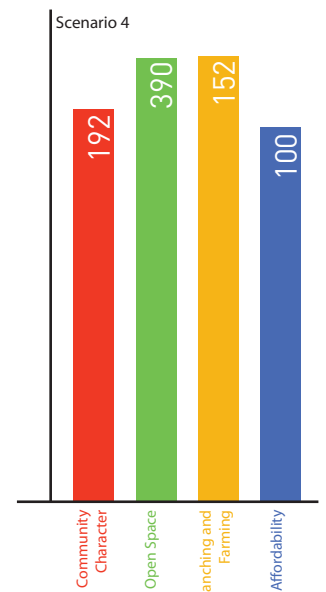
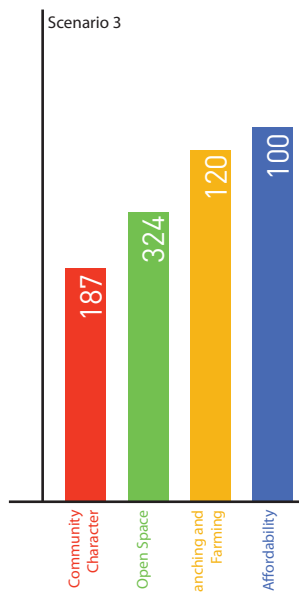
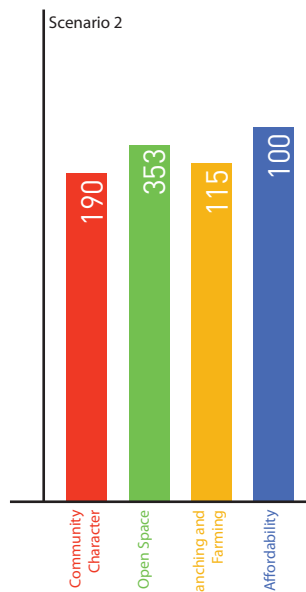
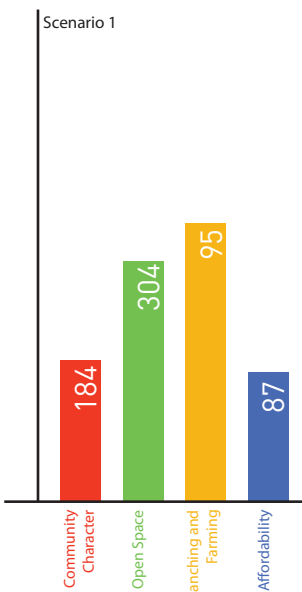
Scenario 2: The Steamboat 700

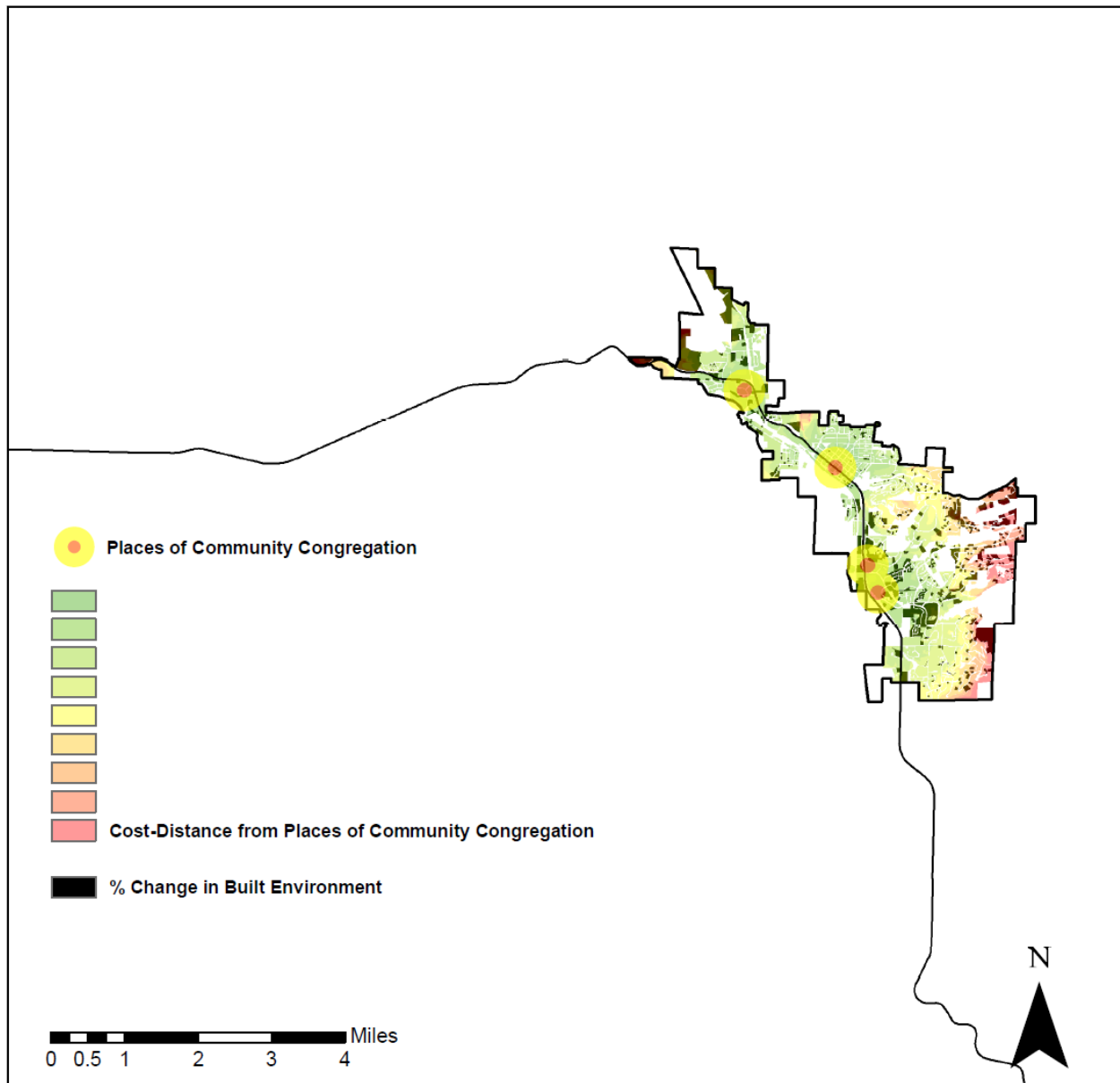


Scenario 3: County Rezoning



Scenario 4: Infill

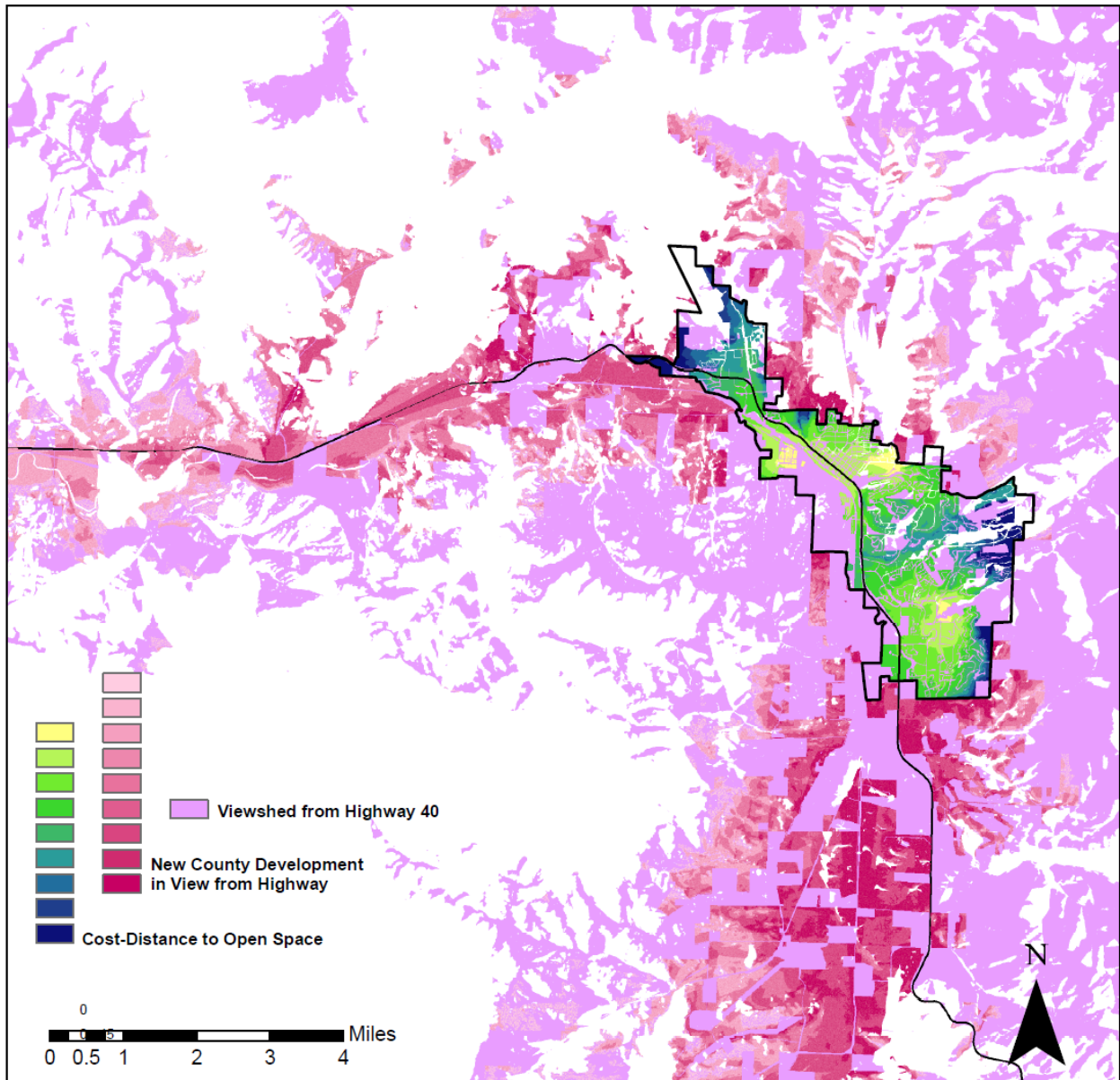




Community Character Indicator Value:

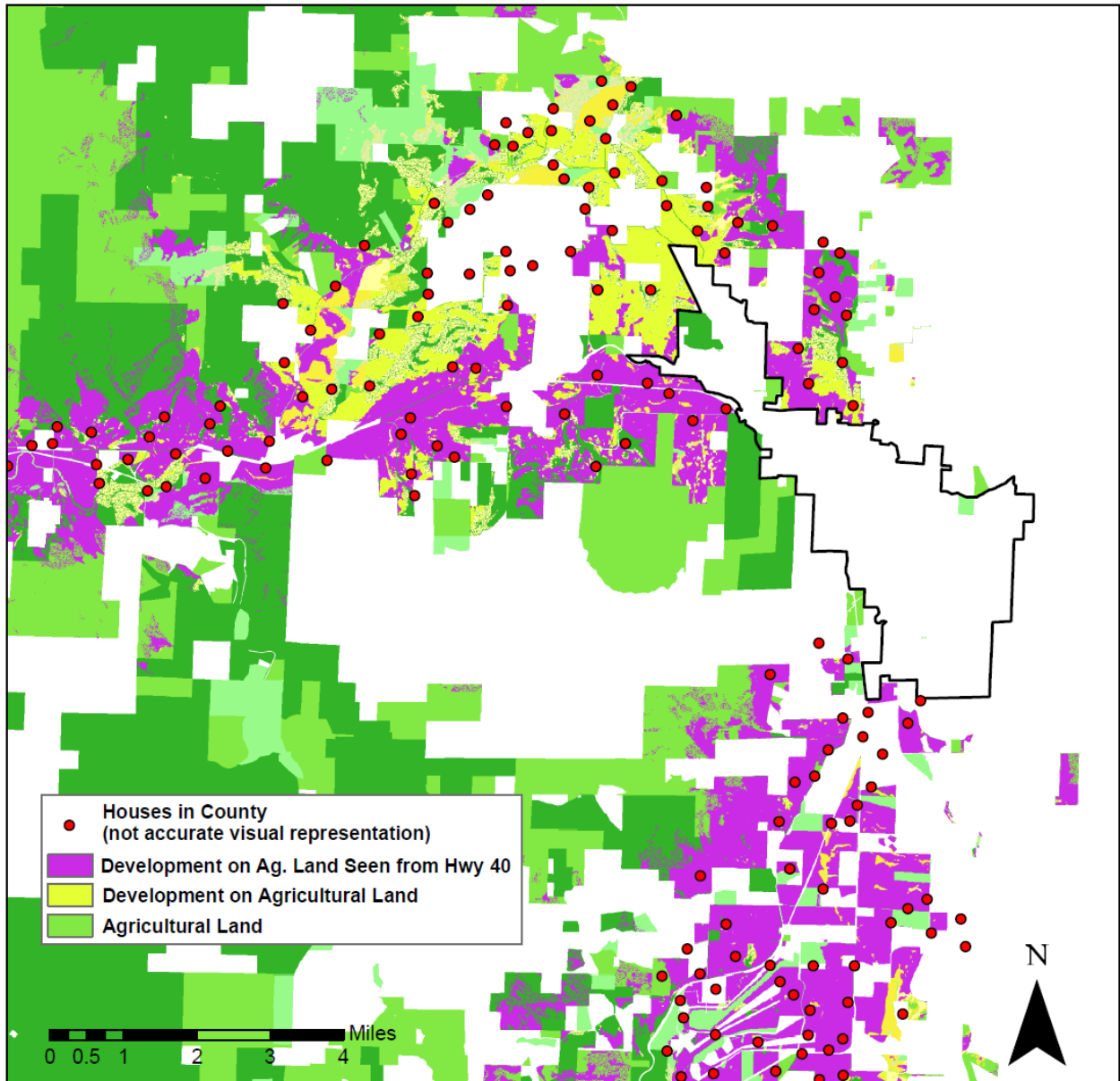
Average Proximity to Community Congregation Points/ #Community Congregation Points + (100 - %Change in Built Environment) + %Demographic Constancy

Community Character is a difficult concept to map, because there are so many qualities about it that don't find spatial expression of any sort. Several aspects of community character were considered, including the physical makeup of town, the demographic makeup of the community, and the ability of the community to congregate and maintain informal social connections. Community congregation points were mapped over centers where people do regular errands around town, including the City Market/ Walmart area, Safeway, Main Street, The Curve Plaza, and the planned town center in the Steamboat 700. The average accessibility to these points from built areas in town was divided by their number, because presumably the more places that people congregate, the less common it will be for people from different areas of town to run into one another. This value was added to the percentage of the built environment that remained the same as in 2010, and to the percentage chance to maintain the same demographic makeup in town. (see affordability below)



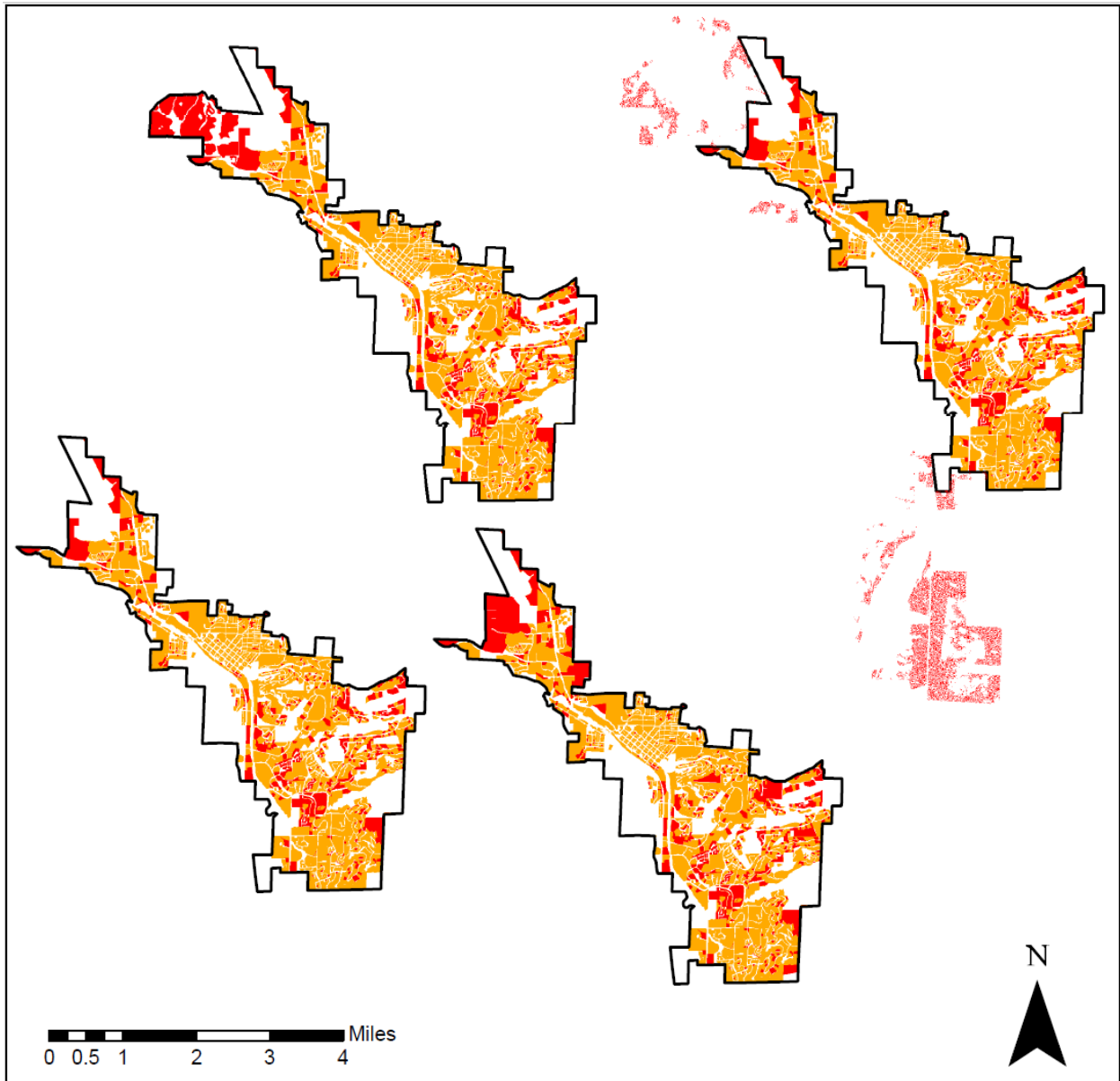
**Open Space Indicator Value:
 (%Open Space in City + Average Proximity to Open Space and Trailheads) +
 3(%Undeveloped Open Space in County)**

The preservation of open space was one of the more straightforward of characteristics to measure here. The percent of Steamboat Springs’ total land area remaining as open space in 2030 was added to the average accessibility of popular trailheads and all public open space, and finally to the percentage of visible open space in the county that escaped subdivision into 35 acre parcels. Open space values inside and outside of city limits were weighted equally, meaning that the county value was multiplied by three to balance against the three separate indicators considered inside of city limits.



**Ranching and Farming Indicator Value:
 %Unsubdivided Agricultural Land + % Unsubdivided Agricultural Land Visible
 from Highway 40**

Measuring growth effects on agricultural land meant first separating out those parcels which have already been subdivided for homesites, and taken out of meaningful agricultural production. Of all parcels zoned agricultural, only those parcels previously sold for less than \$20,000 dollars an acre were considered as candidates for working agriculture. The percentage of these parcels that remained unsubdivided in 2030 was added to the percent of unsubdivided agricultural land within view of Highway 40. This is because while ranching and farming are important to preserve in their own right as economic and social contributors to the community, the agricultural character of the experienced landscape around Steamboat Springs is also important in creating local cultural identity.



**Affordability Indicator Value:
%Opportunity to Maintain Current Demographic Makeup**

A full econometric housing study with hedonic pricing analysis would take a semester to complete by itself, and so is beyond the scope of at least this preliminary report. Instead, this study considered whether there was even a chance for all segments of the population to be accommodated in the study area. It has been shown that maintaining a perfectly elastic supply of housing, or in other words, building enough new housing to meet 100% of new demand, will keep the long-term inflation-adjusted average price of housing constant, even in resort communities. (Short-term real estate bubbles and busts notwithstanding.) Using a willingness-to-pay model, people with more money get first choice of housing, on down to the poorest. In Scenario 1, space ran out, meaning that 63% of the lower/ working class didn't even have an opportunity to try to afford something in Steamboat Springs, but instead were pushed out of the study area. While this metric doesn't go as far as predicting actual housing prices, it does say something about whether there will even be an opportunity for people to try to afford something.