

*Urban  
Fringe  
Development  
Area  
Project  
2010  
Yearbook*



*Missoula,  
Montana*

*April 2011*

*Risky Business But There Was No Other Way - Photographed 1908.*  
Bitter Root Trestle. Missoula OPG Historic Preservation.



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# Introduction and Glossary

**Q** desire to thoughtfully guide growth; minimize impacts to natural resources; and efficiently use existing infrastructure underscores the importance of annually tracking building and infrastructure development in Missoula. This is the third annual update of the supporting data used to create the Urban Fringe Development Area (UFDA) Growth Policy Amendment adopted in 2008 by both the Missoula Board of County Commissioners and City Council.

City of Missoula building permit data and 50 years of Census-documented population trends, suggest the Missoula urban area will continue to grow at an average rate between 1 and 2% per year. As a result the Missoula Urban Service Area (URSA) will have to accommodate approximately 15,000 new dwelling units within the next 20 to 30 years.

According to U.S. Census 2010, the number of housing units inside the URSA is approximately 38,111 with a population of 84,633. From 2000 to 2010 the population grew by 15.9%, with an average annual growth rate of 1.5%. The number of houses increased from 31,309 in 2000 to 38,111 in 2010, an increase of 21.7%. The average annual housing growth rate was 2.0%. Housing stock increased at a greater rate than population, while the number of persons per household decreased from 2.43 to 2.34.

## CALENDAR YEAR 2010

In 2010, residential housing grew by 0.8% (306 permits), which is below the decade's 2.0% average annual housing growth rate, but more than the 0.5% recorded for 2009. Inside the URSA no new Major subdivisions were submitted to the governing bodies for approval. A Major subdivision has six or more lots. Seven multi-family structures of 5+ units were permitted for new construction, totaling 143 apartments.



With the economic downturn, the planning office reviewed twelve subdivision phasing plan amendments and six subdivision extensions requests, which are required to keep existing preliminary subdivision plat approvals from expiring.

Currently, there are ample enti-

led lots for projected population growth. A recent inventory of preliminarily approved Major subdivisions from the last 10 years expands the number of entitled lots to 5,849. Using an average annual population growth rate of 1.5%, there are enough entitled lots to accommodate growth for 9.6 years. A 1.0% growth rate increases the lot supply to 14.4 years.

Future planning and development efforts will determine if these proposed developments meet the actual housing needs of an aging population, cost-conscious commuters, increased land prices, and smaller households.



**Note to the reader:** The database, which informs this document, is constantly evolving. The challenge to this multi-agency document update is gathering and combining data that are not usually juxtaposed on the same map. New data sources are discovered, errors are fixed, and new standard operating procedures applied. This document revises the UFDA entitled lot total previously recorded.

## GLOSSARY OF TERMS

**Urban Service Area:** The Urban Service Area (URSA) is the City of Missoula Wastewater Sewer Service Area. At the time the UFDA Growth Policy Amendment was adopted, the URSA included 33,080 acres; it is now 33,167 acres and changes only by resolution of the City Council.

**Constrained Lands:** Lands constrained from residential development are: public ownership, conservation easements, cemeteries and golf courses, parks, 100-year regulated 1988 FEMA floodplain, slopes

greater than 20%, riparian resource areas, airport restricted lands, and zoning restricted lands. Constrained lands inside the URSA account for 13,601 acres, or 40% of the total area.

**Developable Land:** Developable land was defined using the Montana tax assessor's Computer Assisted Mass Appraisal Database (CAMA). Parcels were considered "developable" if their assessed land value was equal to or greater than the value of the land's improvements. Land assessed as agricultural was considered "developable" because of its low assessed value. This dataset was created in July, 2007. When the UFDA Growth Policy Amendment was adopted, developable land totaled 5,218 acres inside the URSA, with a potential build out, based on existing zoning, of 30,335 dwelling units.

**Entitled Lots:** Entitled lots are those lots and un-built dwelling units in approved Major residential subdivisions They include: preliminarily approved Major subdivisions; un-filed phases of approved Major phased subdivisions; and large portions of un-built filed Major subdivisions. Generally these subdivisions received approval or were filed between 2001 and December 2010. It is estimated there are nearly 5,849 Entitled Lots in the URSA.

**Building Permits:** Missoula City and County Public Works Departments maintain building permits in a shared database, Permits Plus. Monthly Builder Reports of new construction inside the city limits are available from the city at

<http://www.ci.missoula.mt.us/index.aspx?NID=432>

**Neighborhoods:** The fourteen neighborhoods referred to in the UFDA project are study areas comprised of census block groups. They are not necessarily consistent with City-defined neighborhoods or established neighborhood associations.

View UFDA maps and past presentations at the OPG website in Urban Initiatives' UFDA Project section.

<http://www.co.missoula.mt.us/opgweb/UrbanInitiative/index.htm#UFDA>

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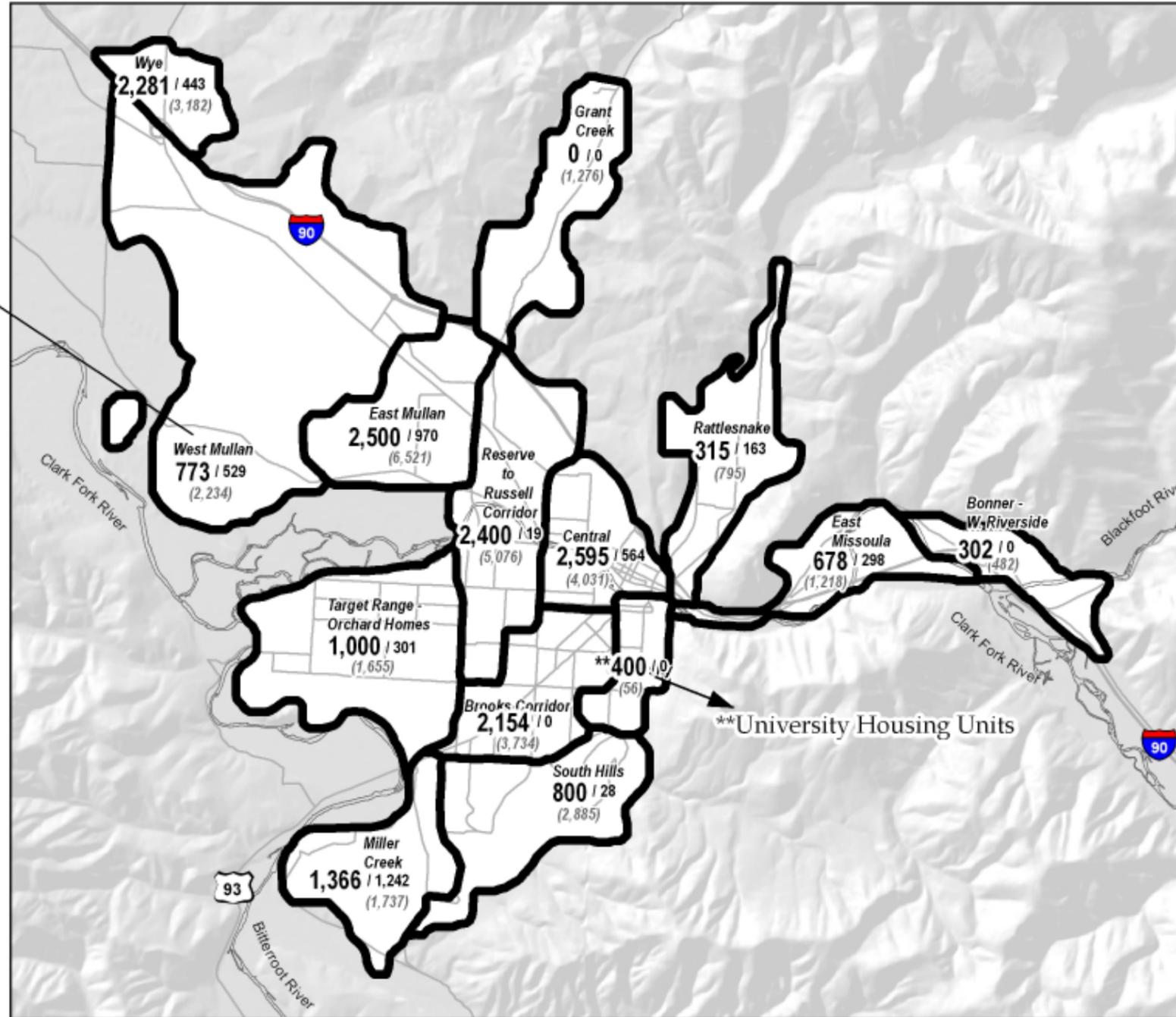
# Missoula County Residential Development Allocation Within Urban Services Area

## Legend

-  Areas in the Missoula Urban Services Area
-  Rivers

Area Name	#A / #B	(#C)
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- #A** Residential growth allocation - Projected new housing units plus entitled lots.
- #B** Entitled lots - Major preliminarily approved subdivisions and Major final plats (2004 - 2008).
- #C** Units permitted by zoning plus entitled lots. In unzoned areas as recommended by land use designation.



Source: Missoula Office of Planning and Grants

Map 18

The Urban Fringe Development Area (UFDA) Growth Policy Amendment adopted in 2008 includes the Residential Development Allocation Map on this page and is referred to as Map 18 in the Missoula County Growth Policy. This residential allocation map has been the baseline for updated information on new residential development.

This map indicates the number of projected dwelling units, entitled lots, and units allowed by zoning that could occur on developable land in fourteen neighborhoods within the Urban Service Area (year end 2007). See the map's legend for detailed information.

When the governing bodies approved the UFDA amendment, they expressed interest in annually updating the numbers shown on this map. The 2010 Update to Residential Allocation Map on page 8 reflects the newest building permit and entitled lot data.

# 306 New Dwelling Units Permitted

**Legend**

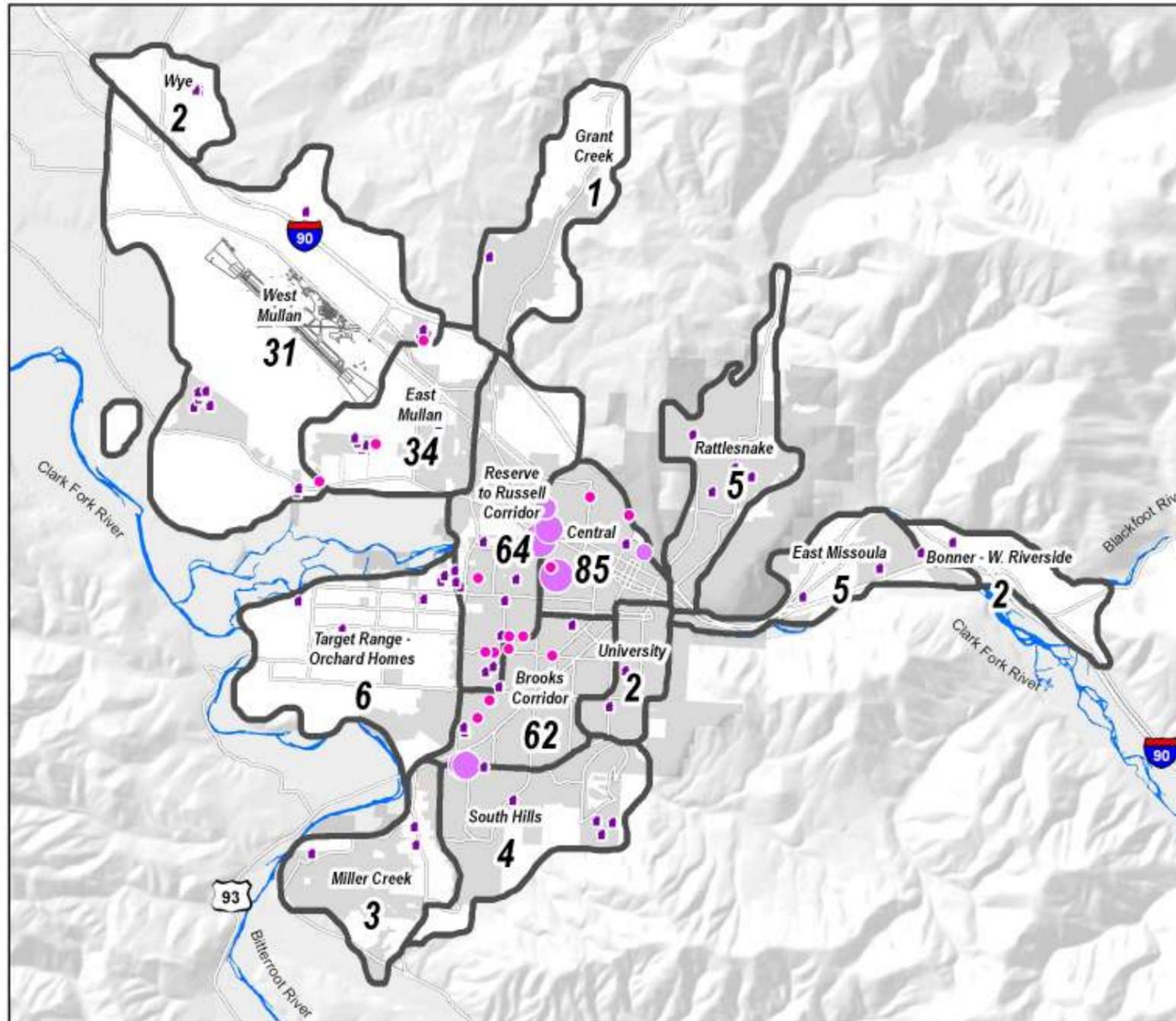
- Townhouse, Duplex or 3-4 unit multi-family
- Single Family Residence
- 34 unit multi-family
- 5 unit multi-family
- ▬ City Limits
- ▭ Areas in the Missoula Urban Services Area

Area Name	#A
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**#A Total Permitted New Residential Dwellings Units**

*Newly permitted residential dwelling units are either single family, duplex, or multi-family residences. Extracted from Permits Plus - a Missoula City/County Building Permits database (February 2011) for the time period 1/1/2010-12/31/2010.*

*Data are not to scale.*



City and County Building Departments permitted construction of 306 new dwelling units within the Missoula URSA in 2010. The 0.8% increase amounts to 108 units more than 2009, but less than the previous decade's average annual housing growth rate of 2.0%.

The map illustrates one year of building permits for new construction. Larger purple circles correspond to a greater number of units in the multi-family complex. The largest multi-family complex is homeWORD's Solstice mixed-use project with 34 rental apartments and ground floor commercial space.

In 2010 residential development shifted from the Mullan Road areas toward the center of town, with Russell Street and S. Third Street considered the dividing axes. Nearly 60% of these permits were inside the Russell to Reserve Corridor, Brooks Corridor and the Central neighborhoods.

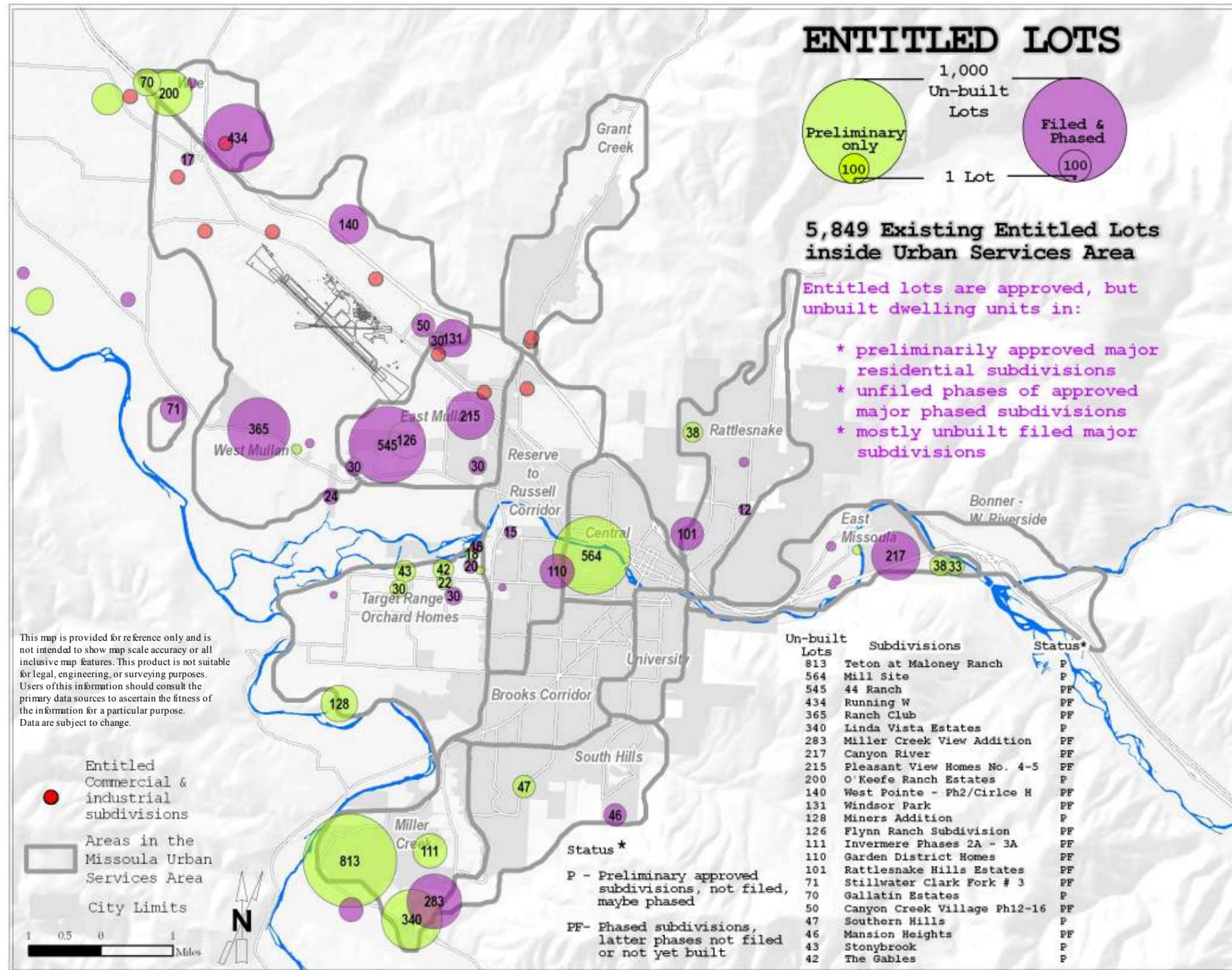
Over one half of new residential construction building permits were for multi-family housing with 143 units in seven 5+ unit rental apartment complexes; 109 single family residential units were permitted. The remainder were duplexes, townhouses, and 3-4 unit multiplexes.

**Large multi-family complexes:**

- 34 unit Solstice on Russell and Broadway
- 31 unit apartment building on N. California Street
- 21 & 18 unit apartment buildings on 2400 block of 39th Street
- 19 unit Porter Apartments, 909 Byron
- 15 unit apartment building N. Russell
- 5 units on N. 2nd St East

City Monthly Builder Reports are posted on-line at <http://www.ci.missoula.mt.us/index.aspx?NID=432>





In 2010, no Major subdivisions inside the URSA were submitted to the governing bodies for approval. The number of entitled lots is 5,849.

Entitled lots are those lots and un-built dwelling units in approved Major residential subdivisions. From the 5,849 entitled lots 3,387 lots (in purple) are filed subdivisions or partially filed phased subdivisions and 2,462 lots (in green) are only preliminarily approved. Some of the larger and older developments are highlighted:

- **Preliminary only:** The 813-lot Teton at Maloney Ranch has 16 phases, all un-filed. One phase will be filed each year with the final phase 16 deadline in 2026.
- **Un-filed phases of partially filed subdivisions:** In the Ranch Club, 6 of 11 phases are filed; 365 entitled lots remain in un-filed phases or vacant platted lots.
- **Filed:** The Mansion Heights subdivision has been in development for 20+ years. The final plat of eight phases was filed in 2008, and 46 lots remain vacant. The number of entitled lots was derived by subtracting new residential construction building permits from dwellings units approved.
- Large **commercial subdivisions** are depicted on the map, but not counted in the entitled lots.

Expanded research into older phased subdivisions uncovered four Major subdivisions plus additional lots in four others, adding 690 lots to the entitled lot total. These additions increased the UFDA entitled lot numbers on the 2010 Residential Allocation Map on page 8: South Hills (65 lots), West Mullan (315 lots), the Wye (200 lots), and Reserve to Russell Corridor (110 lots).

For more information, Missoula County GIS provides filed plats on-line at:  
<http://www.co.missoula.mt.us/research/>

# 2010 Update to UFDA Residential Allocation Map Entitled Lots and Potential Units by Zoning

**Legend**

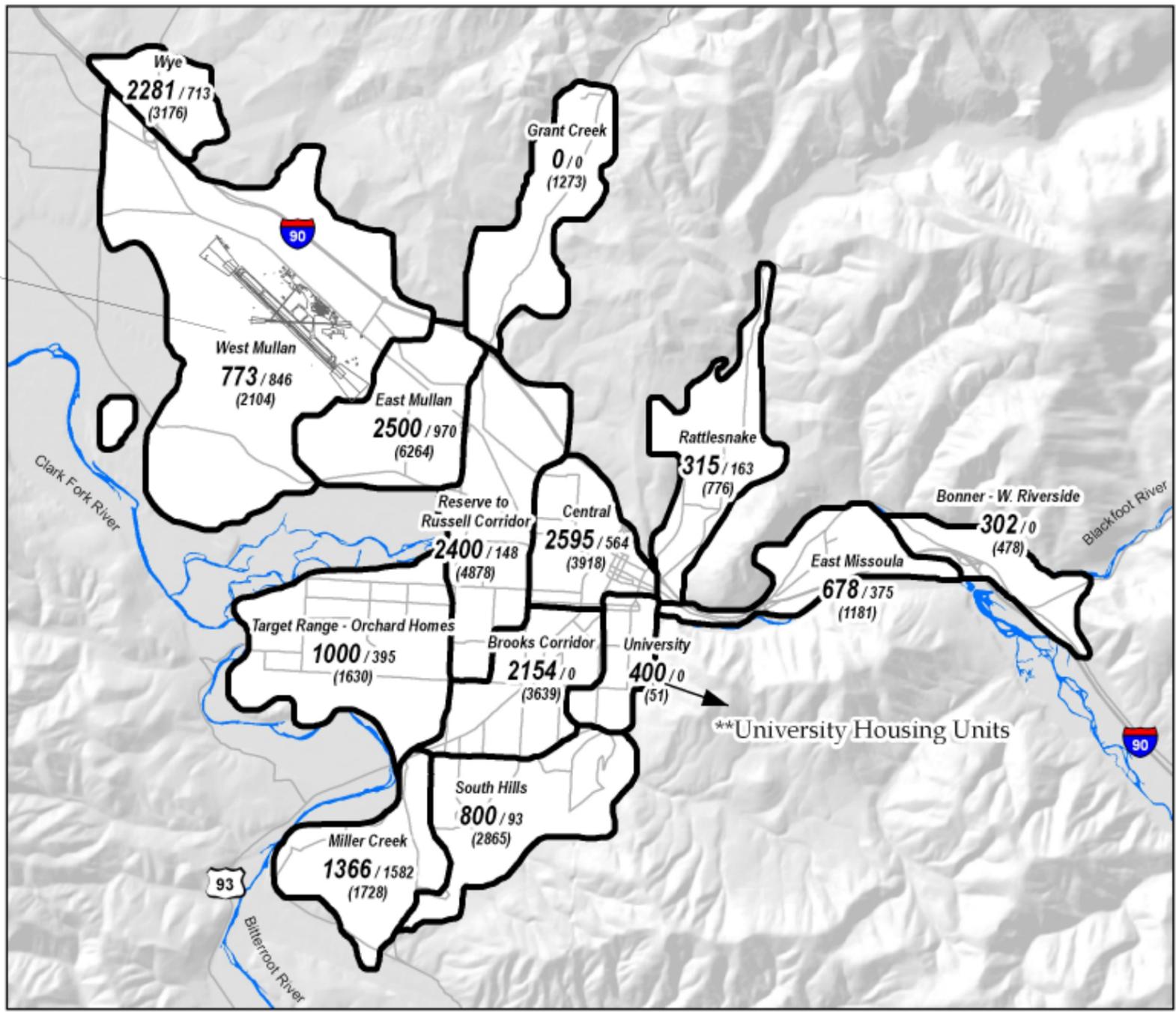
Areas in the Missoula Urban Services Area

**Area Name**  
**#A / #B**  
**(#C)**

**#A Residential growth allocation - UFDA 2008 Growth Policy Amendment**

**#B Entitled lots - UFDA 2009 Update PLUS new entitled lots**

**#C Units permitted by zoning - UFDA 2009 Update MINUS number of new dwelling units permitted**



\*\*University Housing Units



3/1/2011 Source: Missoula Office of Planning and Grants & City of Missoula Public Works

This updated Residential Allocation Map incorporates new entitled lots and residential building permits from 2008 to 2010. This map updates the original residential allocation map on page 5.

An update to Chapter 2 of the Missoula County Growth Policy is underway. The UFDA Residential Allocation Map is included in this Chapter 2 Growth Policy update and will reflect the new entitled lot and units permitted by zoning numbers shown on this map.

The Residential Growth Allocation number (#A) remains unchanged as the original growth policy amendment number. (#A) will not change in the Chapter 2 update.

Within the URSA no Major subdivisions were submitted to the governing bodies for approval in 2010. However, the number of mapped entitled lots (#B) increased by 690 lots over four regions to reflect previously uncounted entitled lots: South Hills (65 lots), West Mullan (315 lots), the Wye (200 lots), and Reserve to Russell Corridor (110 lots).

(#C) represents additional potential dwelling units on developable land allowed according to zoning. (#C) was adjusted down area by area according to the number of new dwelling units documented in building permits. The resulting (#C) is the original growth policy number minus dwelling units permitted in calendar years 2008 to 2010. This lowers the potential future development in the area according to zoning.

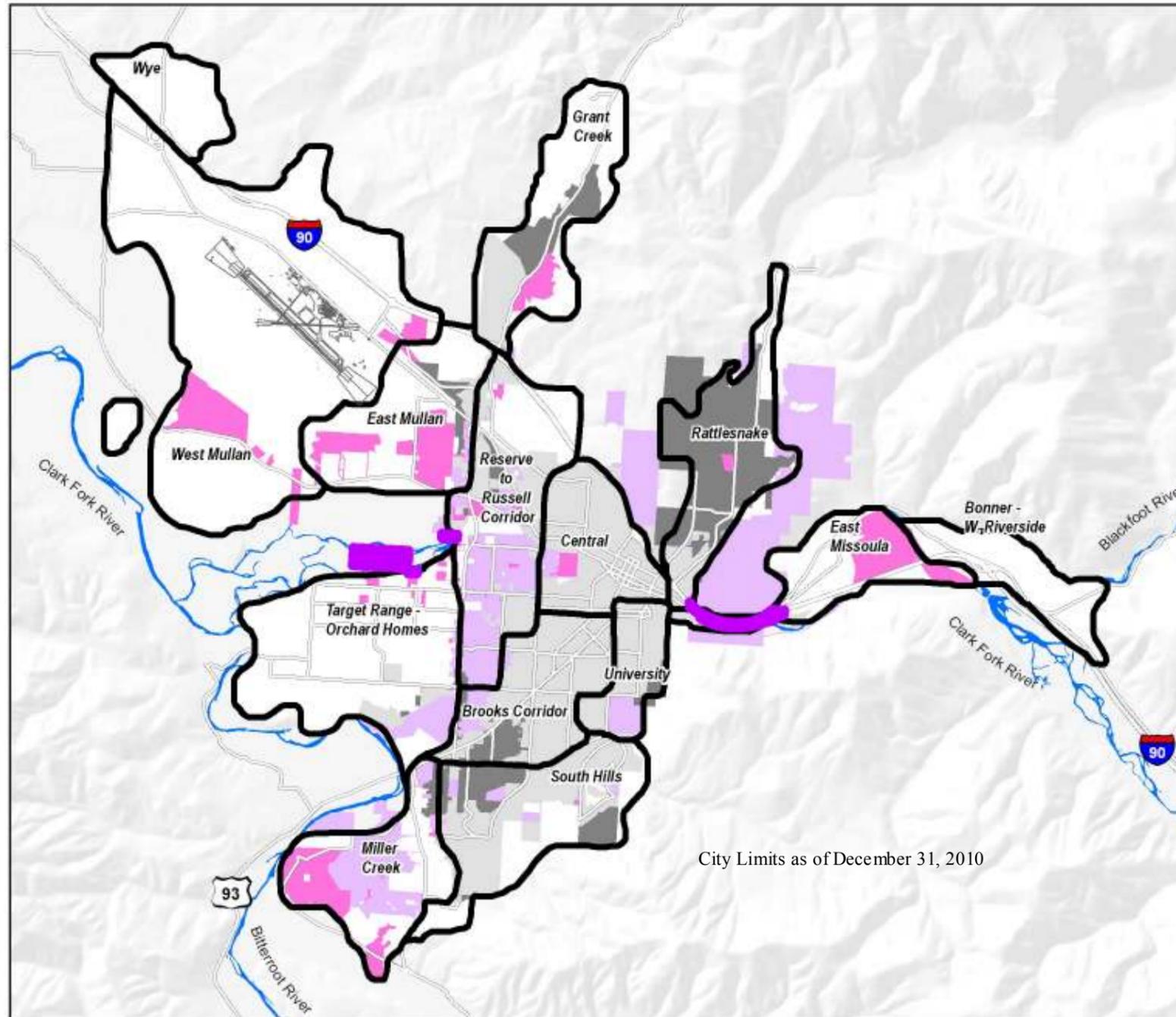
# Two Annexations

**Legend**

- Calendar Year 2010  
2 Annexations  
(195 acres)
- Annexations by Decade**
- 2000 (2,376 Acres)
- 1990 (4,978 Acres)
- 1980 (3,331 Acres)
- City Limits
- Areas in the Missoula  
Urban Services Area

*Annexation and resolution data provided by City of Missoula GIS.  
Downloaded 3/4/2011*

*Parcel representations are not to scale.*



City Limits as of December 31, 2010

Annexations indicate where and how the city is growing. Last year's annexations of 195 acres were comprised solely of right-of-way and publicly-owned land. Mostly they occurred outside the Urban Services Area and inside City Open Space Conservation Land along the Clark Fork River. New annexations are indicated on the map in dark purple.

In December 2010 the City annexed its own Tower Street Conservation Lands (123 acres), comprised of riparian park land and trails along the Clark Fork River. The City also annexed a 9.6 acre parcel south of the sewage treatment plant for future use by the wastewater facility.

South of Mt. Jumbo and north of the river, the City annexed approximately 60 acres of I-90 right-of-way, East Broadway right-of-way, and Montana Rail Link-owned railroad right-of-way.

In recent years most annexations have been initiated by property owners rather than by the City. This year's annexations are the first city-initiated annexations since the "Southwest Missoula Area" Project in 2000, which included Linda Vista and others.

In this map, annexations are also coded by decade. In the 1980's 3,331 acres (5.2 sq. miles) of land were annexed. In the 1990's 4,978 acres (7.8 sq miles) were annexed and from 2000 through 2009, 2,376 acres (3.7 sq miles) were annexed. At year's end (2010) the city's boundaries encompassed some 17,886 acres (27.9 sq. miles).

# Projected Road Congestion 2035

## Existing Network Plus Committed Projects Scenario: 2008 T-Plan Update

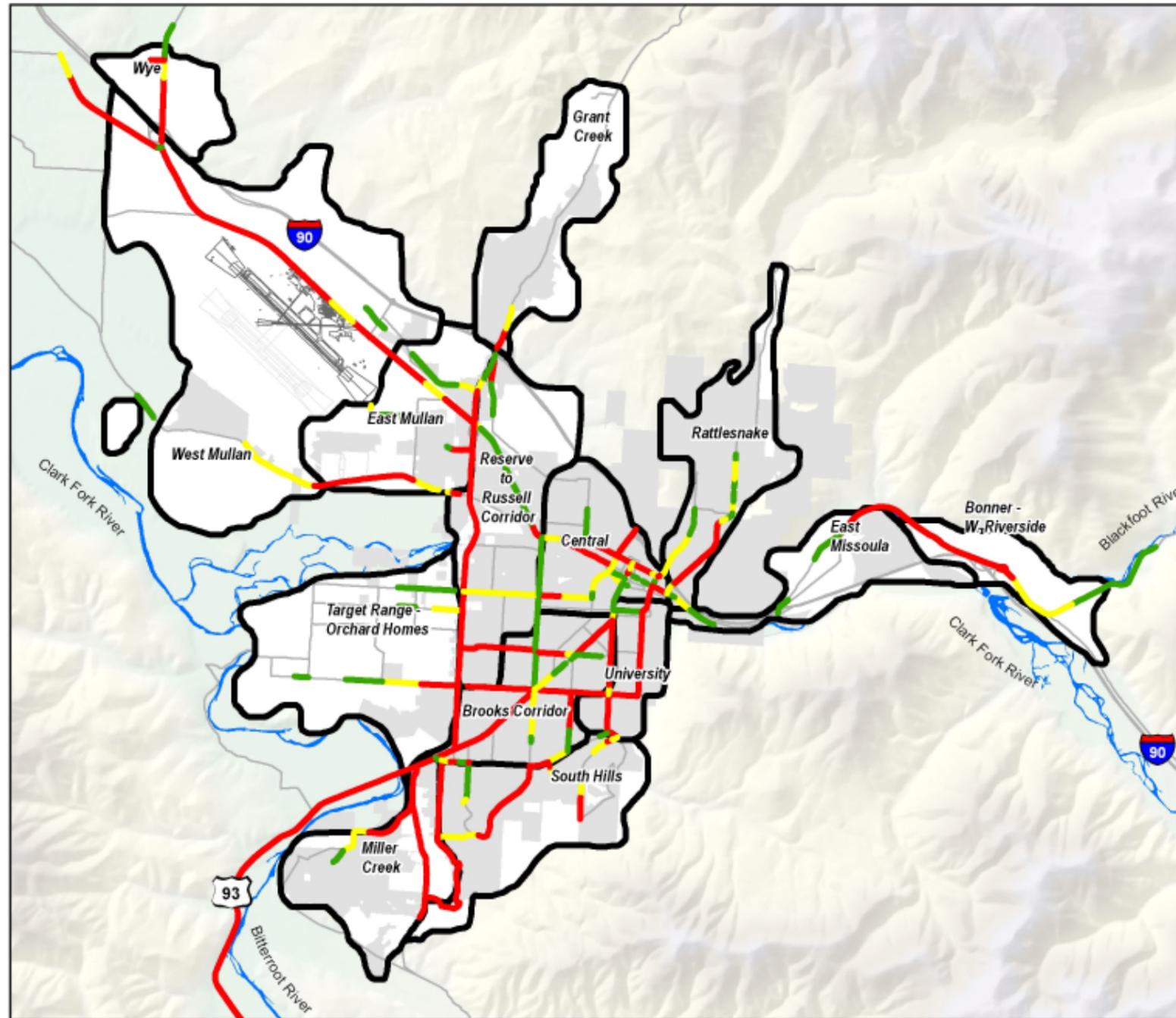
**Legend**

**2035 Congestion Model** measures congestion by a number of vehicles to road capacity ratio (V/C)

- Approaching Capacity (<0.08 to 1.0 V/C Ratio)
- At Capacity (1.01 to 1.19 V/C Ratio)
- Over Capacity (>1.20 V/C Ratio)

- City Limits
- Areas in the Missoula Urban Services Area

*Data come directly from Figure 6-2: 2035 Existing Plus Committed Scenario Congestion of the "2008 Missoula Long Range Transportation Plan". For analysis purposes, a segment was considered congested if the number of vehicles on the segment, measured as Average Daily Traffic (ADT), divided by the General Daily Capacity for that segment was over 1.2.*



In 2008, OPG updated the Missoula Urban Transportation Plan (T-Plan). The traffic congestion data and map on this page come directly from that plan. The T-Plan will be updated in 2012.

This map shows projected traffic congestion based on updated traffic counts. Red lines indicate congestion; yellow roads are at capacity; and green are approaching capacity. Those roads not shown are not expected to be approaching capacity.

This map shows an increasing number of roads over capacity, especially along Expressway Blvd, Hwy 200 in Bonner-West Riverside, Reserve Street, Hillview Way, and the Miller Creek area. While this map is for 2035, planned improvements are being constructed to handle the projected congestion with additional travel lanes, bike paths and transit facilities.

This map's scenario includes regionally significant projects committed in the 2008 T-PLAN Update and the FFY 2011-2015 Transportation Improvement Program (TIP) :

- **Russell Street - Corridor Improvements** from Mount to Broadway
- **South Third St. - Corridor Improvements** from Reserve to Russell
- **5th/6th/Arthur - Madison St. River bridge south approach**
- **Collector Grid System West of Reserve St. - Various roads and intersections**
- **Miller Creek Road Reconstruction - Reconstruct, add lanes** between Briggs and the Y. (Completed 2010)

For more information about the Missoula Transportation plan go to <http://www.co.missoula.mt.us/Transportation/lrtpu1.htm> . For more information about City Public Works projects go to <http://www.ci.missoula.mt.us/index.aspx?NID=583>

# 1.3 Miles New Road Infrastructure

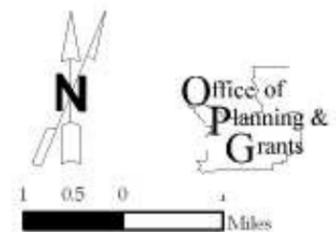
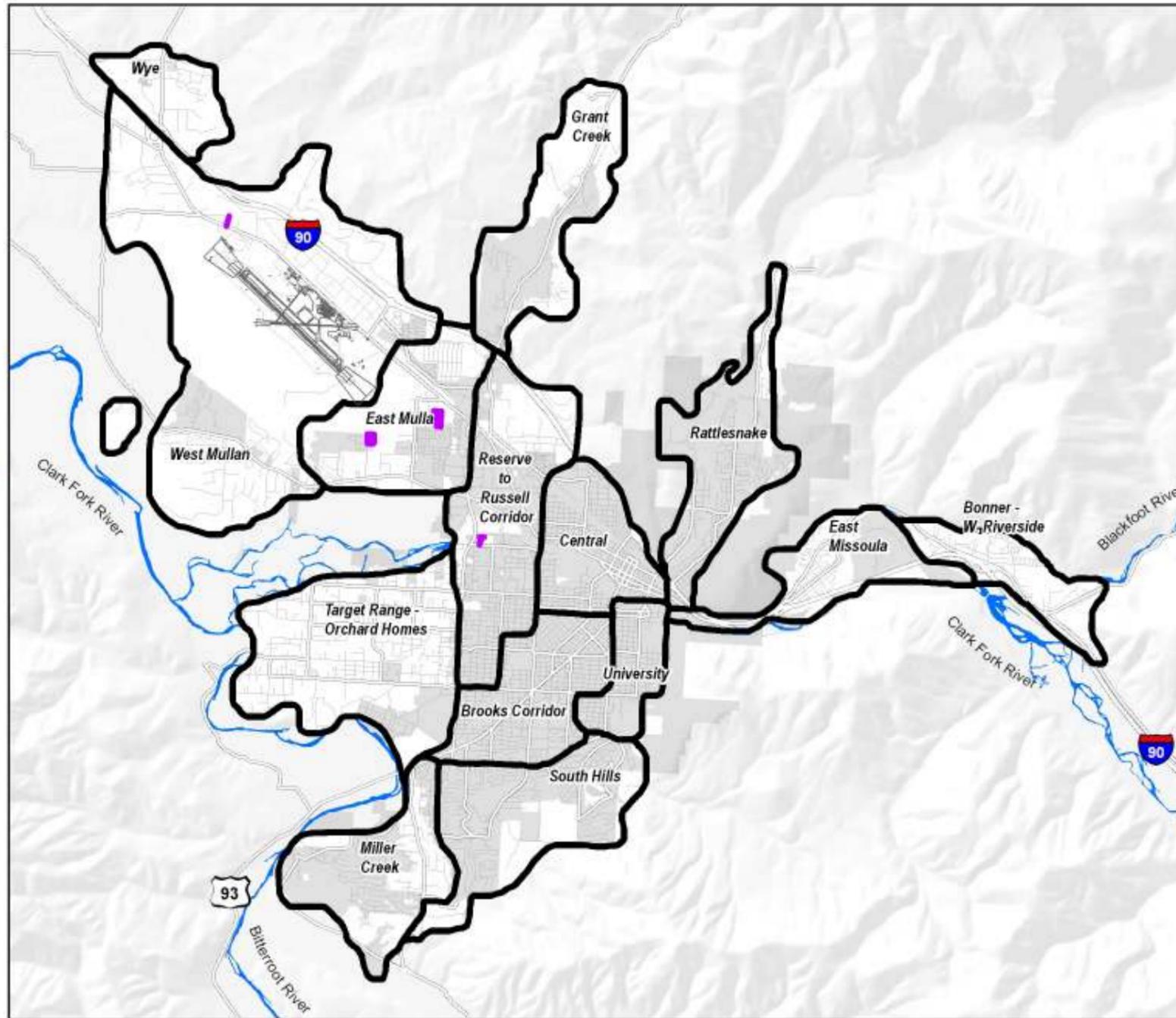
## Legend

-  New Roads 2010  
(6,670 feet, 1.3 miles)
-  Existing Roads  
598 miles
-  Areas in the Missoula  
Urban Services Area
-  City Limits

*Newly paved roads 1.3 miles.  
Existing Roads 598 miles*

*Data collected from both  
City of Missoula Public  
Works and Missoula  
County Public Works.*

*Data are not to scale.*



Inside the Urban Services Area, 1.3 miles of new roads were paved by the City or County in 2010. The new paved roads are inside the city limits, except for a small section of road off of West Broadway in a commercial subdivision.

All new City roads were built in developing subdivisions: Pleasant View Homes No. 4 and Flynn Ranch Phase 1. Inside the Reserve to Russell Corridor the City paved the roads of the River Place subdivision off of River Road.

City road projects completed in 2010 include the North Higgins Streetscape and the Miller Creek Road improvements. Miller Creek Road from Briggs to Mocking Bird Lane beyond the new Miller Creek Y roundabout was improved for the purpose of bringing better traffic flow and increasing safety.

The City performed the following road surfacing maintenance in 2010:

- Mill and overlay 5.7 miles
- Chip seal 10.2 miles
- Overlay 8.1 miles
- Reconstruct 2.7 miles

Of the 598 miles of road within the URSA, approximately 60 percent are inside the city limits and 40 percent are outside the city limits. Most private access roads are not shown on the map, although private roads such as those through Fort Missoula and the Wheeler Court mobile home park are shown.

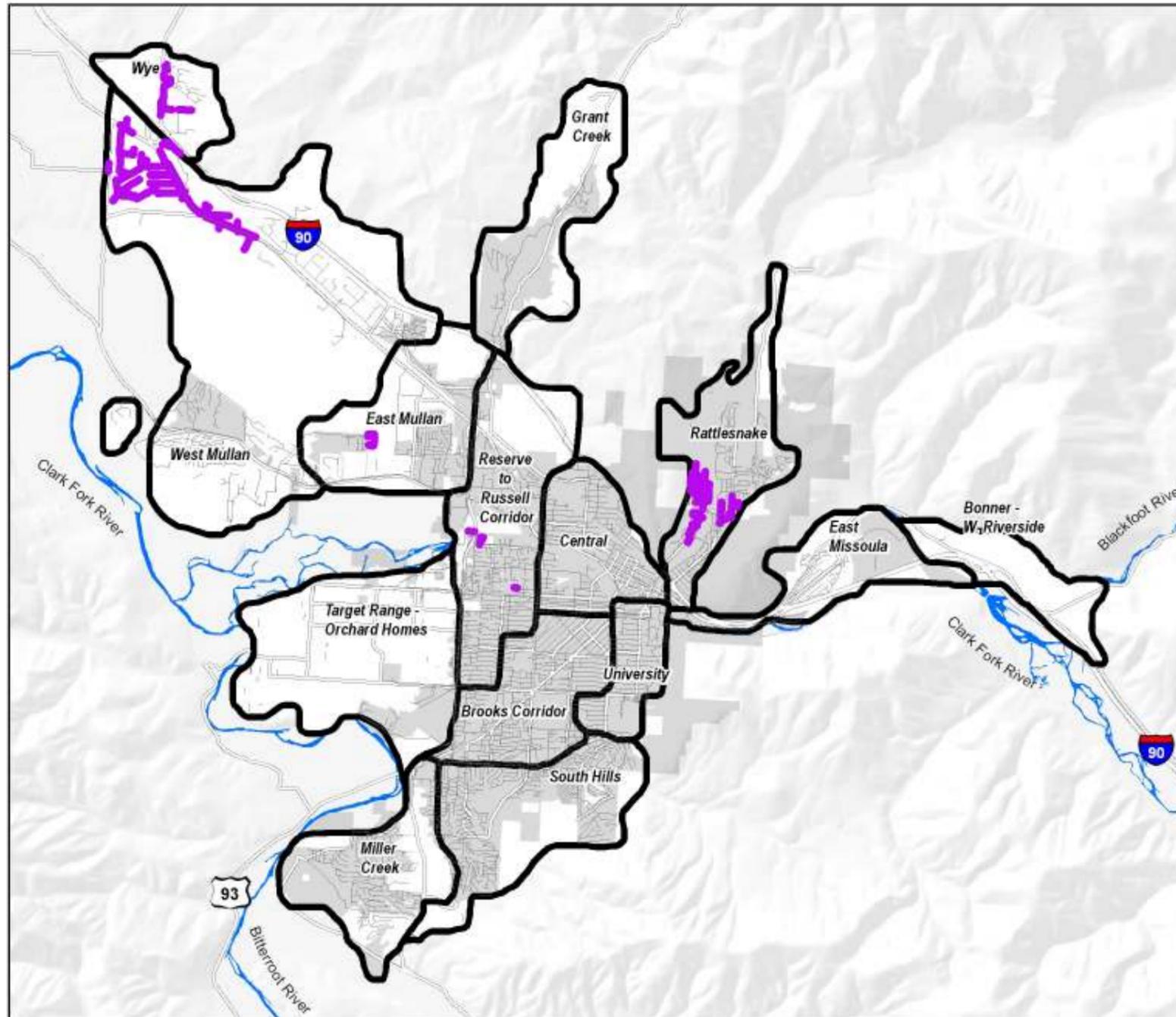
For more information about the city's Major Public Works Projects, go to the website: <http://www.ci.missoula.mt.us/index.aspx?NID=583>

# 13.5 Miles of New Sanitary Sewer Mains Connected

**Legend**

-  New Connected Sewer Mains and Dry Laid (71,282 feet, 13.5 miles) 1/1/2010- 12/31/2010
-  Existing Sanitary Sewer Mains (376 miles)
-  City Limits
-  Areas in the Missoula Urban Services Area

*Sanitary sewer main data are provided by City of Missoula GIS. Sewer main subtypes include force mains, gravity mains, septic tank effluent, and step mains. Downloaded 3/1/2011. Data are not to scale.*

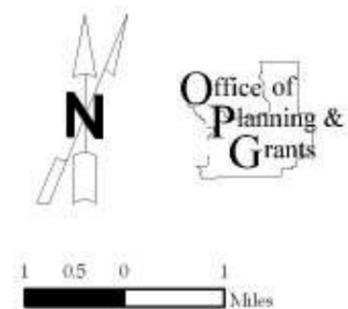


In 2010, 13.5 miles of new sanitary sewer mains, shown in purple, were built. Most of the new lines were part of two key projects, the Wye Area Sewer System and the Rattlesnake Valley Sewer Project.

In the Wye and West Mullan neighborhoods, outside the city limits, the County oversaw the connection of 9.5 miles of sanitary sewer that completed the Wye Area Sewer System. Sewer service will be provided to approximately 1,566 acres of industrial, commercial, and residential land.

The City completed the two-year Rattlesnake Valley Sewer Project adding 3.5 miles of sewer lines in 2010. Special Improvement District (SID) 544, the Rattlesnake project boundary approved in Resolution 7444 in 2009, contains 322 participating parcels.

Inside the Missoula Urban Services Area, 376 miles of sewer mains include force mains, gravity mains, septic tank effluent and STEP mains and those maintained privately and by the University of Montana. Six miles of those mains are either not yet connected to the sewer or are dry-laid in anticipation of possible further expansion.



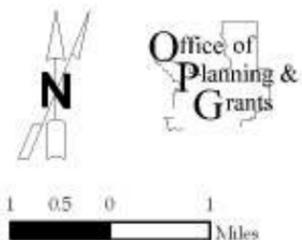
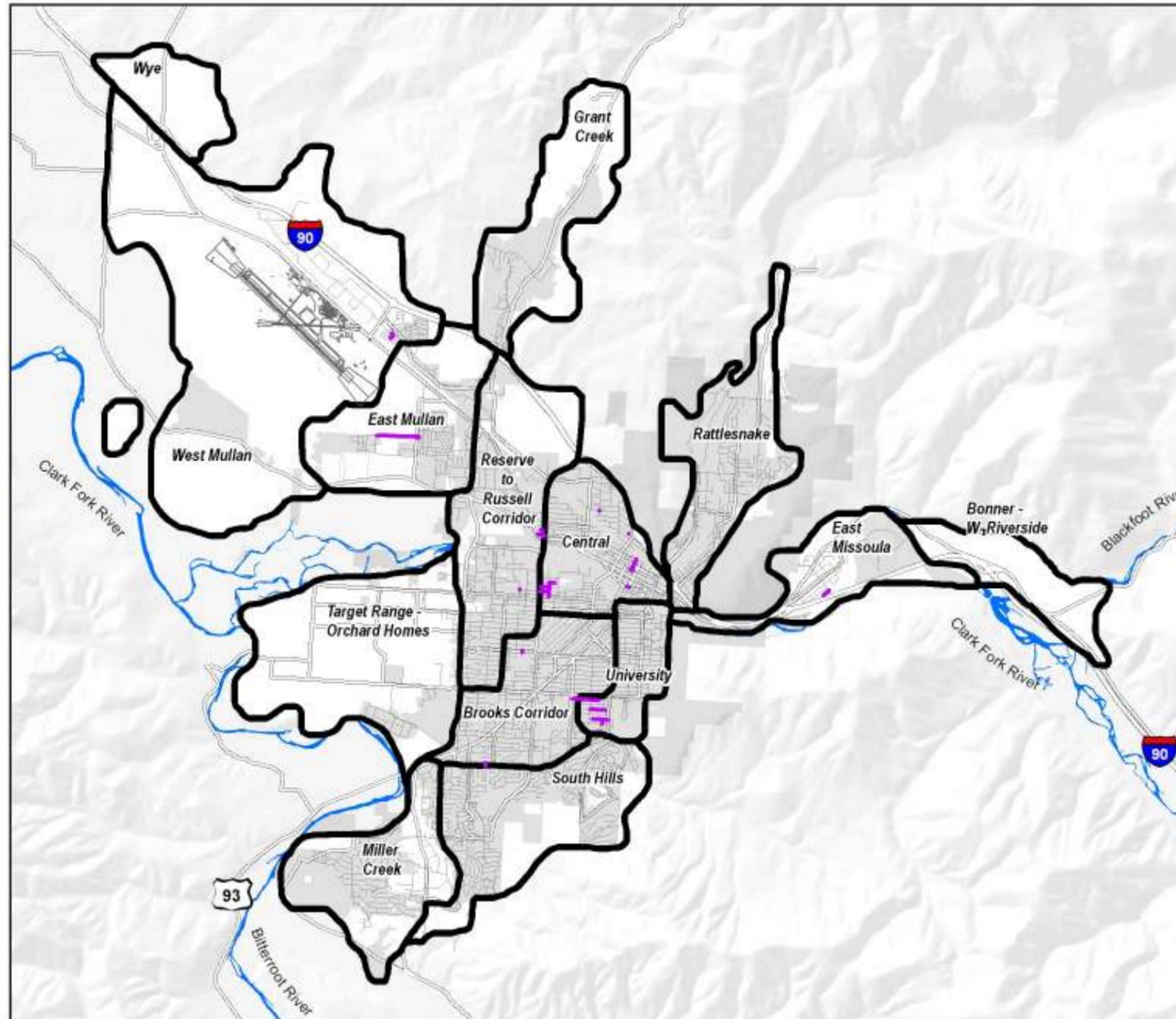
## 2.5 Miles New and Repaired Water Mains

**Legend**

- New and Repaired Main  
(13,272 feet, 2.5 miles)  
1/1/2010 - 12/31/2010
- Existing Mains (330 Miles)
- City Limits
- ▭ Areas in the Missoula Urban Services Area

*Water Main Data are provided by Mountain Water Company via City of Missoula Public Works GIS. Existing mains are primarily owned by Mountain Water Co., but do include some University and other privately owned mains. Data provided 3/1/2011*

*Data are not to scale.*



New and Repaired Water Mains, shown in purple, were documented by Mountain Water Company. In 2010, 2.5 miles of water mains were added or repaired for a total of 330 miles, including some owned privately and by the University of Montana. Existing water mains tracked in the Mountain Water Company database are shown in grey.

Water mains do not always follow sewer mains. For instance, the Ranch Club subdivision in the West Mullan area is attached to city sewer, but maintains its own public water supply. The Wye area also presents a similar situation.

The potable water supply, drawn primarily from wells tapping into Missoula's underlying aquifer, is not municipally owned. In December Mountain Water's parent company, the California-based Park Water Co., announced its intention to sell the Mountain Water Utility to The Carlyle Group, a global alternative asset manager. As of publication, the potential sale is still under the review of the Montana Public Service Commission.

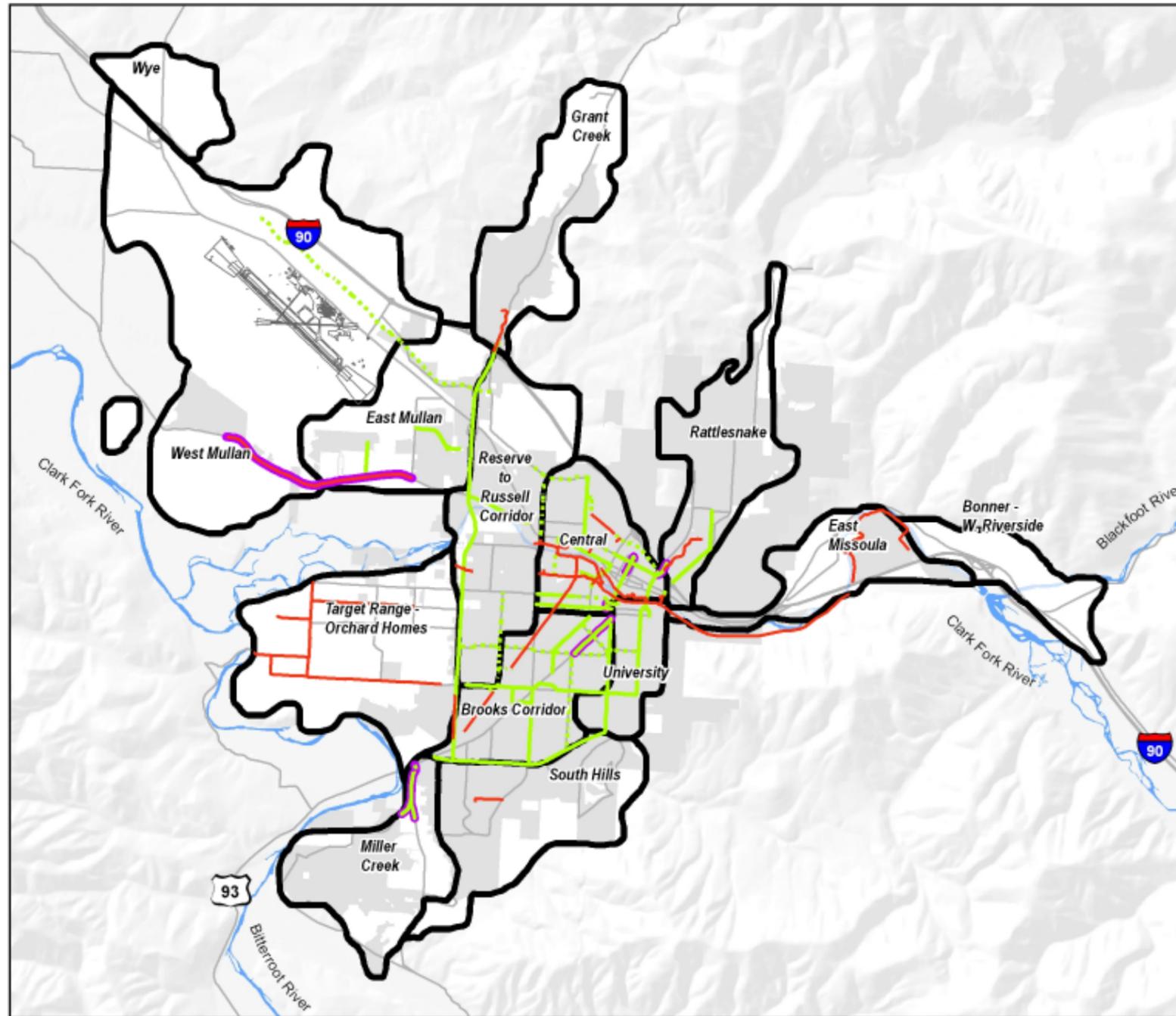
# Transit, Bicycle, and Pedestrian Facilities

## 1.9 Miles New Bike Lanes and 2.7 New Trails on Commuter Network

- Legend**
- Areas in the Missoula Urban Services Area
  - Bike Commuter Network**
    - Existing Trails - 28.6 miles
    - New Trail - 2.7 miles
  - On-road Bike-Ped Facilities**
    - Bike Lane - 26.6 miles
    - Bike Route - 14.0 miles
    - New Bike Lanes - 1.9 miles

*Data are provided by Missoula Parks and Recreation Department, City of Missoula Public Works, and OPG Transportation.*

*Mountain Line Bus Routes did not change in 2010. They are not shown on map.*



The Transit, Bicycle and Pedestrian Facilities Map shows the major on-road bike facilities as well as the primary bike commuter network, consisting of off-road multi-use trails.

As of December 31, 2010 Missoula has 26.6 miles of painted bike lanes and 14.0 miles of bike routes. In 2010, 1.9 miles of striped bike lanes were added in four separate segments: Higgins from Front to Railroad, Lower Miller Creek Road from Briggs St. to beyond the Y roundabout, Brooks from Mount to Higgins, and Greenough from Madison to the Waterworks Hill Trailhead turn-off.

The County added 2.7 miles to the bike commuter network with an off-road multi-use trail adjacent to Mullan Road, from Flynn Lane to Cote Lane.

### TRANSIT

Fiscal Year 2011 has been a standout year for Mountain Line, breaking monthly ridership records for three different months. Through February 2011, Mountain Line ridership totaled 576,863 rides. Approximately 2% were paratransit and 1% were senior van rides.

Ridership for FY10 however, was down 4.2% from 2009, which saw the highest total ridership of the last three years.

Period	Fixed Route	Para-transit	Senior Van
FY08	795,216	16,000	
FY09	829,131	15,466	4,698
FY10	791,653	15,342	6,024

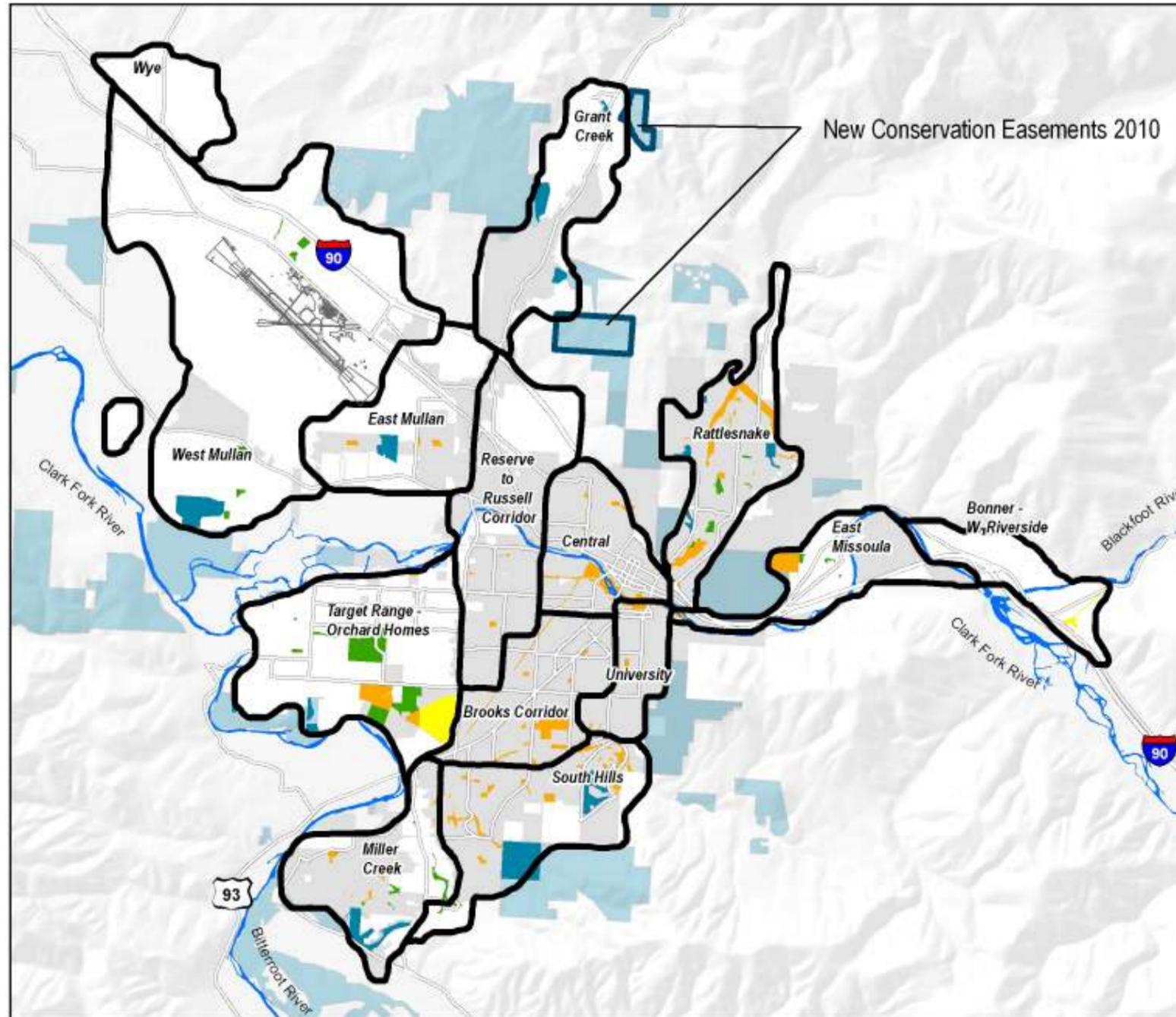
Mountain Line purchased 14 new buses and added them to their fleet in 2010. No bus routes were added, changed or removed.

# Parks and Conservation Easements

## Legend

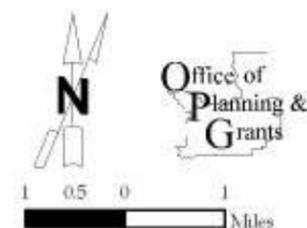
### Park Ownership

- Other - 169 acres
- City - 741 acres
- County - 378 acres
- Conservation Easements - 653 Acres in City Limits
- New Easements 2010 (only outside URSA)
- City Limits
- Areas in the Missoula Urban Services Area



*New parks data provided by City of Missoula Parks and Recreation. Existing data provided by City Parks and Recreation, Missoula County, and Montana Natural Heritage Program.*

*Data are not to scale.*



In 2010, no new parks, open space, or conservation easements were acquired within the Urban Services Area.

Shown in teal blue, 653 acres of land inside the URSA are currently held in conservation easements, including the County-held easement on the South Hills' Highlands Golf Course. Five Valleys Land Trust (FVLT) is the primary easement holder inside the urban area, and in 2010 acquired two more conservation easements just outside the URSA in the North Hills. These are labeled out on the map.

Inside the URSA, the map highlights 741 acres of city parks in orange, 378 acres of county parks in dark green, and 169 acres of "other" space shown in yellow, including Missoula County-owned Larchmont Golf Course. All told, the Missoula Urban Services Area is home to nearly 2,000 acres of parks, conservation easements and open space land.

A new map of Missoula parks, open space, and trails is available from the city's map page at <http://www.ci.missoula.mt.us/index.aspx?NID=468>

City parks are most often acquired through the process of approving Major subdivisions. The City however does not acquire the land until the plat is filed.

Other large area land owners in the Missoula Urban Area, but not necessarily inside the URSA, include the United States Forest Service, The Nature Conservancy as part of the Legacy Lands Project, Plum Creek Timber, the Montana Department of Natural Resources, University of Montana, and Montana Fish Wildlife and Parks.

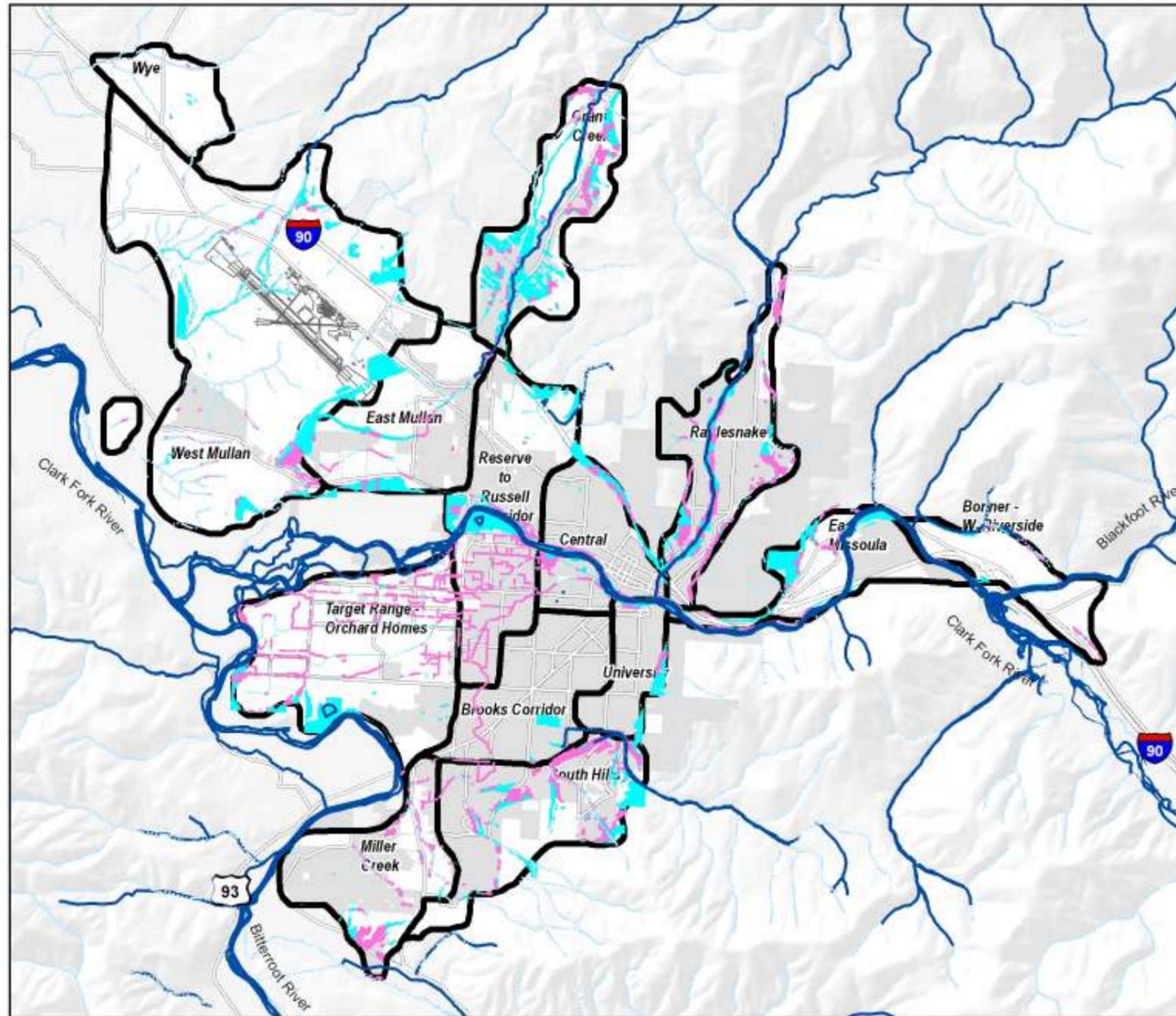
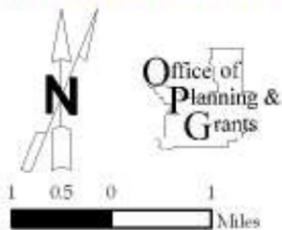
## Sensitive Lands and Resources

**Legend**

-  Rivers and Streams
-  Intermittent Stream
-  Developed Sensitive Lands - (611 Acres)
-  Sensitive Lands (3,980 Acres)
-  City Limits
-  Areas in the Missoula Urban Services Area

*Sensitive lands are comprised of the following: delineated riparian areas and wetlands, 100-year regulated floodplain (FEMA-1988), irrigation ditches, perennial streams, and steep slopes over 20 percent.*

*Not all riparian and wetland areas are mapped and a new FEMA floodplain should be approved in 2010. Data are not to scale.*



Nearly 4,000 acres of sensitive lands are shown in light blue and pink. The resource is comprised of delineated riparian areas and wetlands, 100-year regulated floodplain (FEMA-1988), irrigation ditches, perennial streams and steep slopes over 20 percent. Sensitive agricultural lands are discussed on page 17.

As there were no new entitled lots in 2010 and building permits were focused in previously developed land, no sensitive resources were lost to new residential development, per the UFDA definition: parcels under two acres are considered impacted.

During review of preliminary plats for proposed subdivisions, the governing bodies consider the impacts to the natural environment and require the subdividers to reasonably minimize potentially significant adverse impacts. This does not necessarily mean development is prohibited in or near sensitive lands. Each situation is evaluated independently.

Sensitive Lands shown in pink are considered developed, which means the sensitive resource lies on a parcel smaller than two acres. Presently there are 611 acres of developed sensitive resources, 15 percent of the total within the URSA.

This map is intended as an overview of cumulative growth rather than a detailed assessment of impacts to the sensitive lands and resources. In general, however, the smaller the parcel, the higher the risk of degradation.

In 2010 the Federal Emergency Management Agency (FEMA) released its third preliminary update to the Digital Flood Insurance Rate Map (DFIRM) database, which is the basis for Missoula floodplain management. FEMA has yet to determine the release date for the final DFIRM.

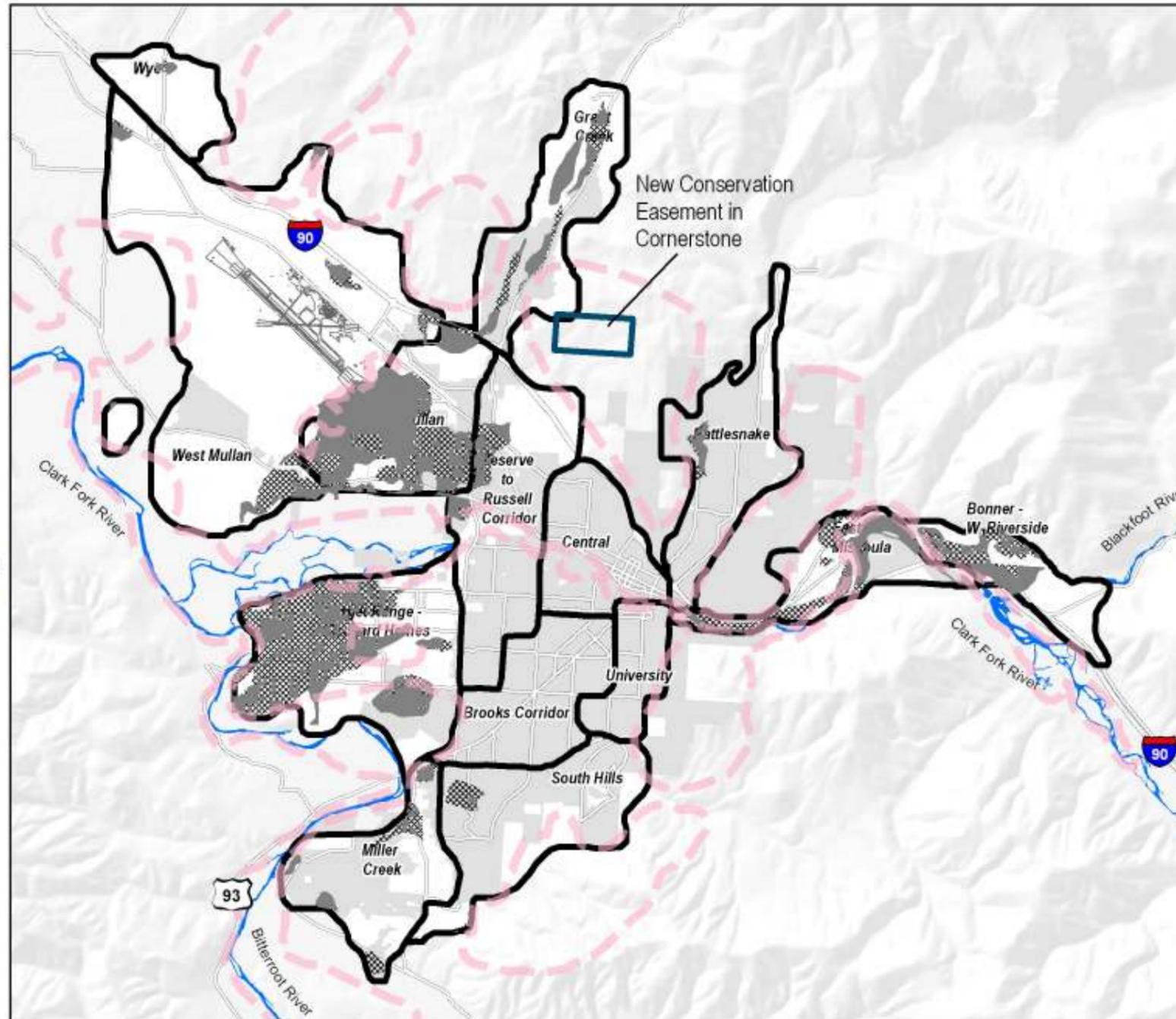
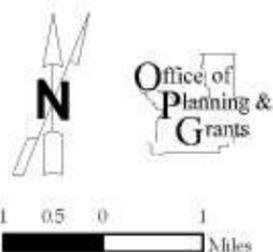
# Prime\* Agricultural Soils

**Legend**

- Areas in the Missoula Urban Services Area
- City Limits
- Open Space Cornerstones
- All NRCS Prime if Irrigated Soils**
- Parcels over 2 acres (3,636 Acres)
- Parcels under 2 acres (2,282 Acres)

*The Natural Resources Conservation Service (NRCS) ranks land for its suitability as farmland. The "prime if irrigated" soils are the best suited for agriculture in Missoula. Parcels from Montana DOR. Analysis by OPG.*

**\* Prime if Irrigated**



Soils designated Prime if Irrigated by the Natural Resource Conservation Service (NRCS) have the most potential agricultural productivity of any land. Inside the URSA some 5,918 acres land are classified as Prime If Irrigated, including land that is occupied by houses and roads.

Although market gardening can be done on parcels as small as 1/4 acre, parcels of two or more acres are more desirable for commercial agricultural production. In the URSA there are 3,636 acres of Prime if Irrigated soils on parcels over two acres shown in grey. In black crosshatch 2,282 acres of Prime if Irrigated soil are on parcels less than two acres. The acreage does not include the soils of the city core, which are classified as urban by the NRCS.

As there were no new entitled lots in 2010 and building permits were focused in previously developed land, no soils designated Prime If Irrigated were lost to new residential development, per the UFDA definition: parcels under two acres are considered impacted.

Open Space Cornerstones, as designated in the 2006 Missoula Open Space Plan Update, are shown in pink. In 2010 no land inside the urban services area was preserved for open space. However, the 300-acre conservation easement acquired by Five Valleys Land Trust from Allied Waste is a large addition to open space preservation in the North Hills Open Space Cornerstone.

# Critical Wildlife Habitat

**Legend**

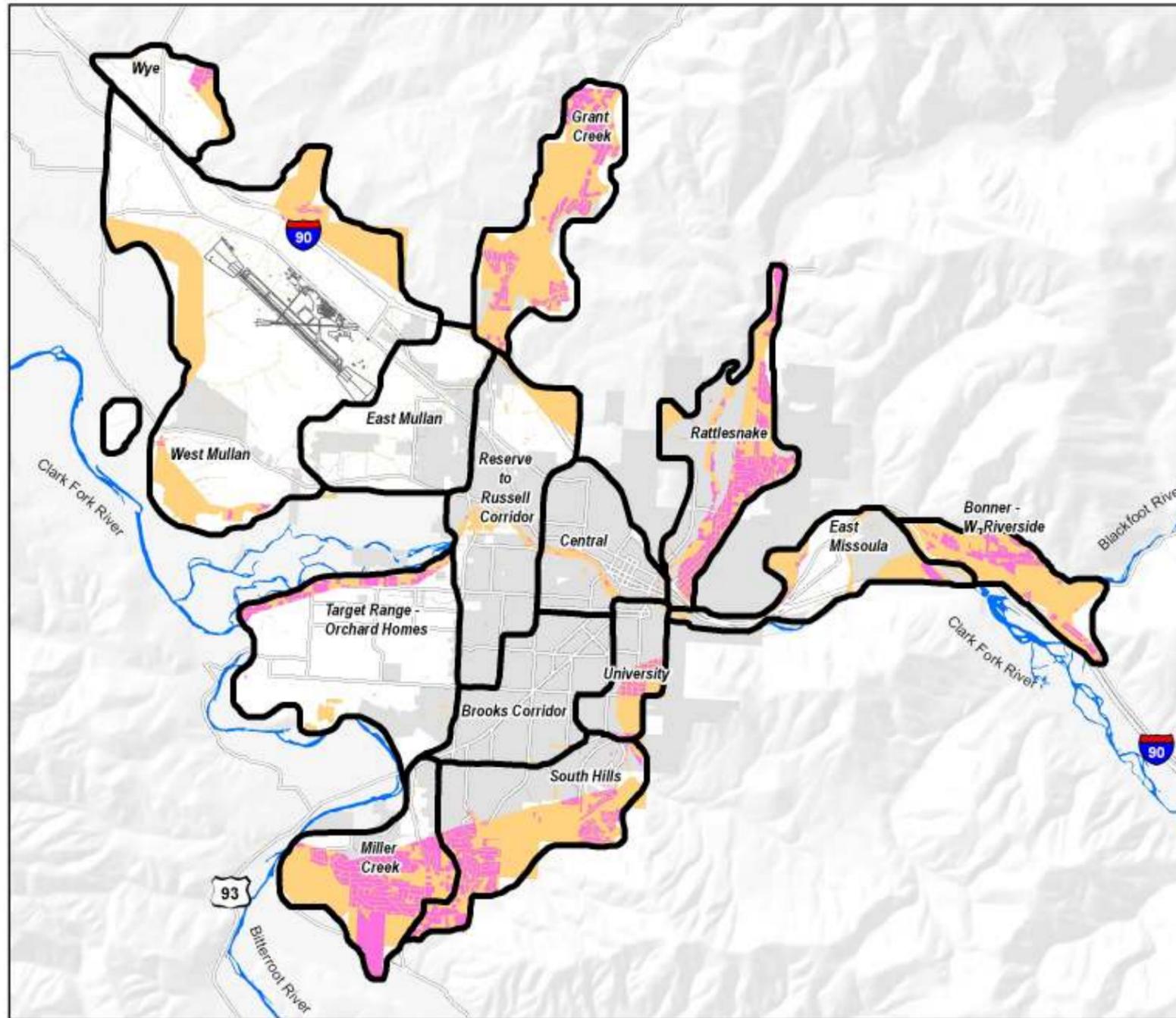
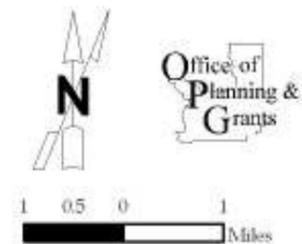
**Critical Wildlife Habitat**

- Total Defined Critical Habitat - (10,117 acres)
- Developed Critical Wildlife Habitat - (2,470 acres)
- City Limits
- Areas in the Missoula Urban Services Area

*The following are considered Critical Wildlife Habitat: Bull Trout Critical Habitat (50 ft. buffer), Important Bird Areas, Critical Elk Habitat, Big Game Winter Range, Wildlife Linkage Zones, and Streams/Riparian/Wetland areas.*

*Big Game Winter Range includes, the winter ranges of elk, mule deer, white tail deer, moose, big horn sheep, and mountain goat.*

*Data are not to scale.*



Critical wildlife habitat, shown in orange and pink, is comprised of Bull Trout Critical Habitat, Important Bird Areas, Critical Elk Habitat, Big Game Winter Range, Wildlife Linkage Zones, and Streams/Riparian and Wetland areas. Critical habitat encompasses 10,117 acres. It is a combination of designations from USFWS, FWP and other agencies.

As there were no new entitled lots in 2010 and building permits were focused in previously developed land, no critical wildlife habitat was lost to new residential development, per the UFDA definition: parcels under two acres are considered impacted.

During review of preliminary plats for proposed subdivisions the governing bodies consider impacts to wildlife and wildlife habitat and require the subdivider to design the subdivision to reasonably minimize potentially significant adverse impacts. This does not necessarily mean development is prohibited in or near sensitive lands. Each situation is evaluated independently.

Critical wildlife habitats shown in pink are considered developed. Presently there are 2,470 acres of developed sensitive resources, 24 percent of the total within the URSA. The map does not reflect preliminarily approved subdivisions before 2009.

This map is intended as an overview of cumulative effects rather than a detailed assessment. Generally, lot creation through low or high density subdivisions negatively impacts wildlife habitat.

The delineated critical habitats are only a general indication of actual occurrence. Winter habitat can vary from year to year and change over time.

