

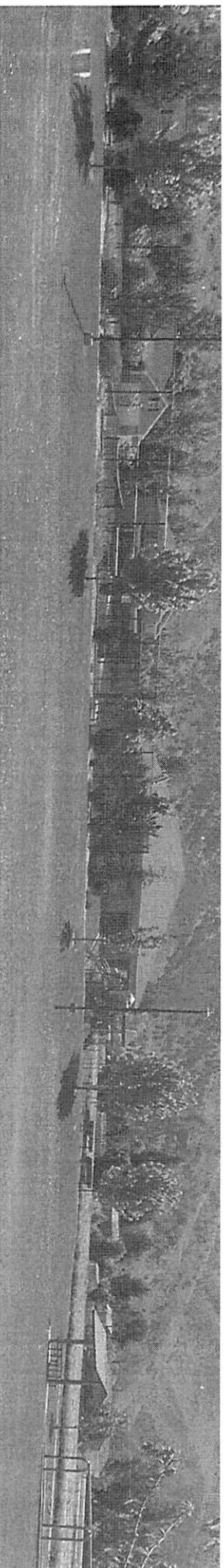


2015 CULINARY WATER, TRANSPORTATION &

PARK IMPACT FEES

MILLVILLE CITY, UTAH

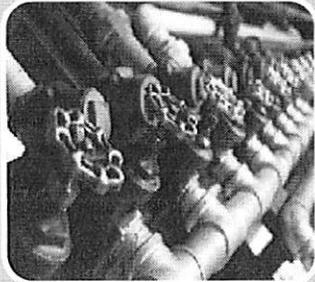
OCTOBER 2015



INTRODUCTION

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- Before imposing an impact fee, each local political subdivision or private entity shall prepare:



IMPACT FEE FACILITIES PLAN (IFFP)

Identifies the demands placed upon the City's existing facilities by future development and evaluates how these demands will be met by the City. Outlines the improvements which are intended to be funded by impact fees.

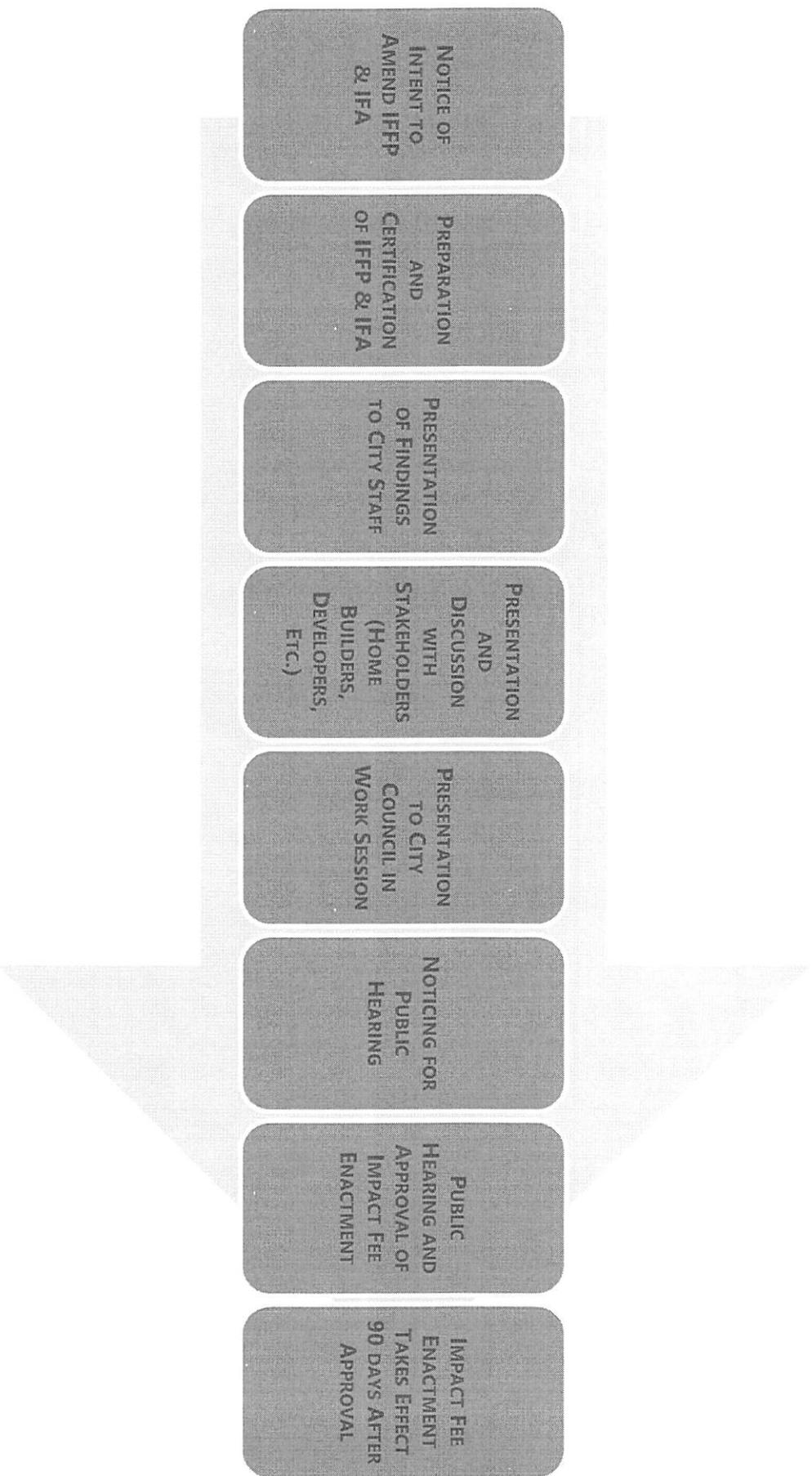


IMPACT FEE ANALYSIS (IFA)

Proportionately allocates the cost of the new facilities and any excess capacity to new development, while ensuring that all methods of financing are considered.

IMPACT FEE PROCESS

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IFFP AND IFA METHODOLOGY

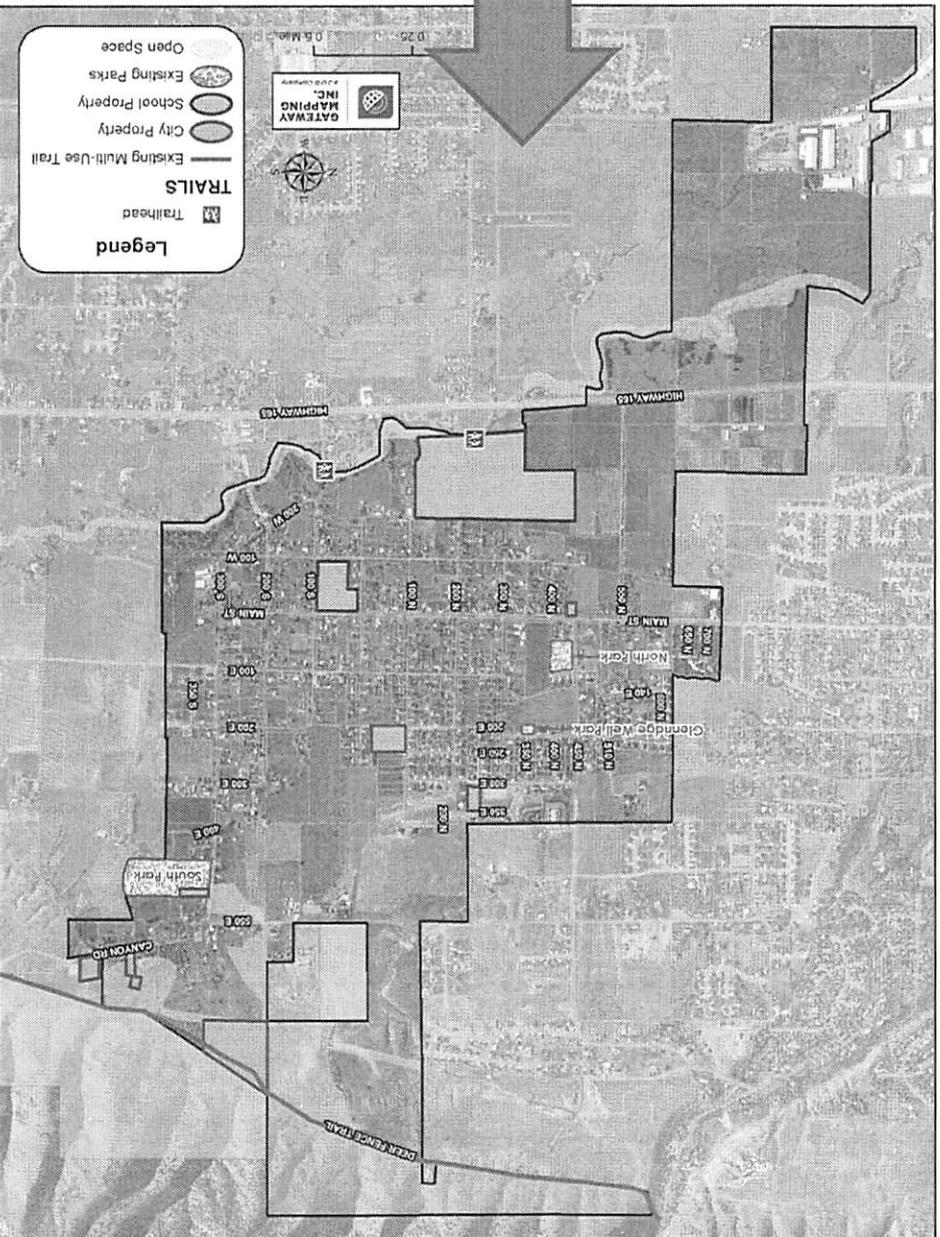
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1. Determine Existing & Future Demand within the Service Area
2. Provide Inventory of Existing Facilities
3. Establish Existing & Proposed Level of Service
4. Identify Existing and Future Capital Facilities Necessary to Serve New Growth
5. Consider All Revenue Resources to Finance System Improvements
6. Conduct Proportionate Share Analysis



1. SERVICE AREA

Service Areas
are contiguous
with Municipal
Boundaries



1. DEMAND

I. Parks & Recreation

YEAR	POPULATION
2015	1,906
2016	1,944
2017	1,983
2018	2,022
2019	2,063
2020	2,104
2021	2,146
2022	2,189
2023	2,233
2024	2,277
2025	2,323
AAGR	2.00%
New Pop.	417

II. Water

	ERCs
2015	574
New ERCs in IFFP	126
2025	700
AAGR	1.50%

- Assumes higher growth than shown in Park Master Plan (PMP shows pop. growth of 106)
- This high growth scenario is used to determine impact on excess capacity



1. DEMAND

III. Transportation

Land Use		FAR	Developed Acres	Developed Units	Peak Hour Trips	Entering/ Exiting	Pass-by Adjustment	Current Peak Hour Trips
Residential								
Residential Dwellings	Unit		39.75	546	9.57	0.50	0%	2,613
Non-Residential								
General Commercial	Sq Ft	0.15	12.91	84,321	18.13	0.50	14%	654
Manufacturing/Warehousing	Sq Ft	0.20	15.65	136,299	3.69	0.50	0%	251
TOTALS			68.30					3,518

Land Use		FAR	Undeveloped Acres	Undeveloped Units	Future Peak Hour Trips	Total Trips @ Build-out
Residential						
Residential Dwellings	Unit		181.09	2,488	11,904	14,517
Non-Residential						
General Commercial	Sq Ft	0.15	84.80	554,109	4,299	4,953
Manufacturing/Warehousing	Sq Ft	0.20	143.42	1,249,510	2,305	2,557
TOTALS			409		18,508	22,026



2. EXISTING FACILITIES

I. Parks & Rec

Park Type	City Parks System	Total Acreage
<i>Neighborhood Park</i>		
	<i>North park 100 East 450 North</i>	2.67
<i>Community Park</i>		
	<i>South Park 500 East 300 South</i>	11.50
<i>Undeveloped Park Land</i>		
	<i>South Park undeveloped</i>	0.50
TOTALS		14.67

II. Transportation:

- Sidewalks, Curbs, Roads and Land valued at \$2,833,586 (excluding project improvements)



2. EXISTING FACILITIES

III. Water

Source

Asset	Available Water-Summer (GPM)
Park Well	680
Glenridge Well	280
Garr Spring	75
Total	1,035

Storage

	Capacity (gallons)
Total:	2,300,000

Distribution

	Total Pipe Length (feet)
Total	82,060

Booster Stations

	Capacity (gpm)
Booster Station	600
Total:	600

Value of Existing Facilities

	Principal	Interest	Total
Source	\$127,289	\$56,212	\$183,501
Storage	\$2,017,500	\$890,957	\$2,908,457
Distribution	\$506,544	\$223,697	\$730,241



3. LOS

I. Parks & Recreation:

Summary Level of Service (Cost per Capita)	Land Value per Capita	Improvement Value per Capita	Total Value per Capita
Neighborhood Parks	\$92	\$450	\$542
Community Parks	\$398	\$897	\$1,295
Undeveloped Park Land	\$17	\$0	\$17
Total	\$508	\$1,347	\$1,855

II. Water: Existing & Proposed Source @ 1.37gpm per ERC

- a) Storage: Existing @ 1,720 Gal (Equalization & Emergency) per ERC
- b) Storage: Proposed @ 1,358 Gal (Equalization & Emergency) per ERC

III. Transportation: LOS D or Higher



4. EXCESS CAPACITY

- I. Parks & Recreation: Not Applicable
- II. Transportation: Existing Assets Allocated through Buildout

4. EXCESS CAPACITY

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Source

		Notes
Total Source Capacity	1,035	GPM
Existing Demand	786	GPM
Excess Capacity	249	GPM
% Excess Capacity	24.1%	
ERCs Served by Excess Capacity	182	ERCs
New ERCs in IFFP	126	ERCs
Percent to IFA	69.3%	
Remaining ERCs to Serve in IFFP	-	
Base Value of Existing Facilities	\$183,500.94	
Total Base Value	\$183,500.94	
% Excess Capacity	24.1%	
Excess Capacity Value	\$44,146.60	
Percent to IFA	69.3%	
Cost to IFA	\$30,589.98	

Storage

		Notes
Total Storage Capacity	2,300,000	Gal
Less Fire Suppression	1,020,000	Gal
Remaining Capacity	1,280,000	Gal
Existing Used Capacity	987,396	Gal
Total Excess Capacity	292,604	Gal
% Excess Capacity	12.7%	
ERCs Served by Excess Capacity	215	ERCs
New ERCs in IFFP	126	ERCs
Percent to IFA	58.5%	
Remaining ERCs to Serve in IFFP	-	
Base Value of Existing Facilities	\$2,908,457	
Total Base Value	\$2,908,457	
% Excess Capacity	12.7%	
Excess Capacity Value	\$370,011.37	
Percent to IFA	58.5%	
Cost to IFA	\$216,374.02	



4. EXCESS CAPACITY

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Distribution

Year	ERCs	% of Total
2015	574	26%
New ERCs in IFFP	126	6%
BO ERCs	2,212	100%
Total Base Value	\$730,240.99	
Percent to IFA	5.7%	
Cost to IFA	\$41,497.89	



4. FUTURE CAPITAL IMPROVEMENTS

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I. Parks:

Type of Improvement	Land Value per Capita	Improvement Value per Capita	Total Value per Capita	Population Increase IFFP Horizon	Cost to Parks over IFFP Horizon
Neighborhood Parks	\$92	\$450	\$542	417	\$226,392
Community Parks	\$398	\$897	\$1,295	417	\$540,378
Undeveloped Park Land	\$17	\$0	\$17	417	\$7,227
Total			\$1,855		\$773,996



4. FUTURE CAPITAL IMPROVEMENTS

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II. Water:

Project	2011 Construction Cost Total	Construction Year Cost Total	Cost to Growth	% Within IFFP	Cost to IFA
Source	\$2,199,000	\$2,200,740	\$2,200,740	-	-
Distribution	\$465,600	\$651,427	\$154,109	59%	\$90,170
Booster Pumps	\$30,000	\$38,003	\$38,003	-	-
Total Capital Projects	\$2,694,600	\$2,890,171	\$2,392,853		\$90,170

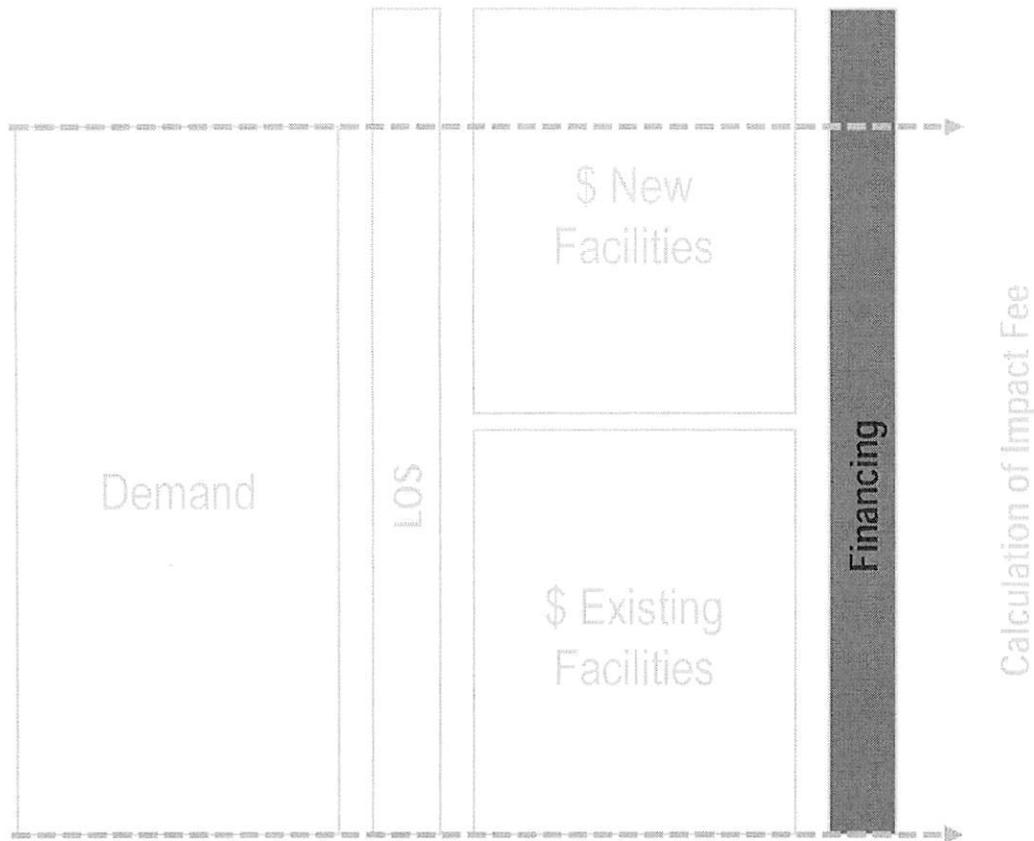
III. Transportation:

Street	Total Cost	Construction Yr Cost	Cost to Millville	Cost to New Growth
Total	\$22,995,820	\$34,020,368	\$10,514,960	\$9,784,145
IFFP Project (10 Year Horizon)	\$9,124,890	\$10,949,456	\$4,928,084	\$4,197,269



5. FINANCING

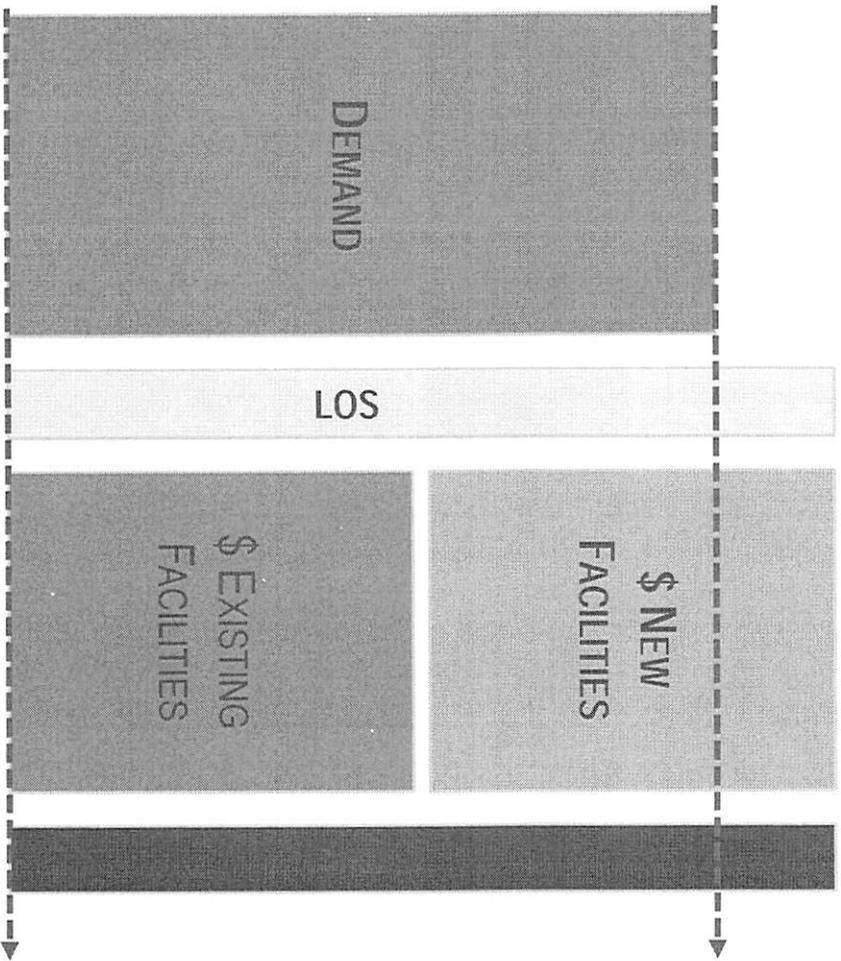
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How will Projects be Funded:

1. Debt Financing
2. Impact Fees
3. User Rates
4. General Funds
5. Other Revenues

6. PROPORTIONATE SHARE



CALCULATION OF IMPACT FEE

6. PROPORTIONATE SHARE

Proposed Park Impact Fee

	Land Value per Capita	Value of Improvements per Capita	Total Value per Capita
Parks			
Neighborhood Parks	\$92	\$450	\$542
Community Parks	\$398	\$897	\$1,295
Undeveloped Park Land	\$17	\$0	\$17
Other		Value	Total Value per Capita
Professional Services Expense		\$11,417	\$47
Estimate of Impact Fee per Capita			\$1,902

Impact Fee per HH	Persons per HH	Fee per HH	Existing Fee per HH	Change
Single-Family (per unit)	3.39	\$6,448	\$2,000	222%
Multi-Family (per unit)	1.04	\$1,978		

Additional Analysis Required



6. PROPORTIONATE SHARE

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Proposed Culinary Impact Fee

	Total Cost	Cost to Growth	Percent within IFFP Window	Cost to Impact Fee	ERCs Served	Fee Per ERC
Excess Capacity						
Source	\$183,501	\$44,147	69%	\$30,590	126	\$243
Storage	\$2,908,457	\$370,011	58%	\$216,374	126	\$1,721
Distribution	\$730,241	\$41,498	100%	\$41,498	126	\$330
Future Projects						
Future Source	\$2,200,740	\$2,200,740	-	-	126	-
Future Storage	-	-	-	-	126	-
Future Distribution	\$651,427	\$154,109	59%	\$90,170	126	\$717
Future Booster Pumps	\$38,003	\$38,003	-	-	126	-
Other						
Professional Expense	\$4,167	\$4,167	100%	\$4,167	99	\$42
Total	\$6,550,719	\$2,832,907		\$370,285		\$2,955



6. PROPORTIONATE SHARE

Proposed Culinary Impact Fee

Meter Size (in)	Nominal Multiplier*	Impact Fee per Meter Size	Existing Fee	% Change
3/4	1.00	\$2,955	\$3,700	-20%
1	1.67	\$4,935		
1 1/2	3.33	\$9,840		
2	5.33	\$15,750		
3	11.67	\$34,485		
4	20.00	\$59,100		
6	41.67	\$123,135		

*ERU Multiplier based on updated AWWA M6 Manual "Water Meters"



6. PROPORTIONATE SHARE

Proposed Transportation IFA

	Total Qualified Cost	% to New Growth	Cost to New Growth	Trips	Cost per Trip
Existing Facilities	\$2,833,586	100.0%	\$2,833,586	18,508	\$153
Future Facilities	\$4,197,269	100.0%	\$4,197,269	14,990	\$280
Impact Fee Fund Balance	(\$112,246)	100.0%	(\$112,246)	14,990	(\$7)
Professional Expense	\$4,000	100.0%	\$4,000	835	\$5
Total	\$6,922,609		\$6,922,609		\$430

Land Use	ITE Codes	Per	Adjusted Trips	Impact Fee
Residential Dwellings	210	Unit	4.79	\$2,060
General Commercial	820	KSF	7.76	\$3,339
Manufacturing/Warehousing	110,120	KSF	1.85	\$794

Existing Fee per Unit/1,000 Sq. Ft.	% Change
\$4,749	-57%

6. PROPORTIONATE SHARE

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Fee Summary	Proposed	Existing	Difference
Parks	6,448	2,000	4,448
Water	3,053	3,700	(647)
Transportation	2,060	4,749	(2,689)
Total	\$11,561	10,449	\$1,112
% Change	11%		



NEXT STEPS

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- Provide feedback regarding proposed fee
- Finalize model and assumptions (LYRB)
- Finalize IFFP and IFA (JUB/LYRB)
- Prepare ordinance (City)
- Complete noticing for IFFP and IFA (LYRB/City)
- Hold public hearing by (ALL)
- Adopt, modify or reject proposed impact fee (City Council)
- 90 day wait period

Utah Living With Fire

1
Communities
at Risk

2
Community
Wildfire
Protection
Plans

5
Fire Adapted
Community

3
Ready, Set, Go!

4
Firewise
Community

Utah Living With Fire

The purpose of Utah Living with Fire is to provide homeowners living in Wildland Urban Interface areas with fuel reduction, structural modifications and access recommendations developed by their peers and fire-fighting experts. The program offers many tools available for educators, homeowners, community groups, fire safe councils, and firefighting professionals to help educate and inform others about mitigating Utah's wildfire threat. utahlivingwithfire.com

1

Communities At Risk (CAR'S)

A list developed cooperatively at the local and state level which purpose is to assist the land management agencies and other interest parties in determining the scope of the wildland urban interface challenge and to monitor progress in mitigating the hazards in these areas. The list includes community name and categories of risk (fire occurrence, fuel hazard, values protected, and protection capabilities). The categories of risk are given a numeric values for no risk, moderate, high and extreme. <http://bit.ly/CommunitiesAtRisk>

2

Community Wildfire Protection Plans (CWPP)

The purpose of the CWPP is to empower communities to organize, plan and take action on issues impacting community safety, enhance levels of fire resistance and protection to the community, identify the risks of wildland/urban interface fires in the area and identify strategies to reduce the risks to homes and businesses in the community. <http://bit.ly/FireCWPP>

3

Ready, Set, Go! (RSG!)

National program managed by the International Association of Fire Chiefs (IAFC). Local fire departments deliver message to communities to be READY with preparedness understanding, be SET with situational awareness when fire threatens, and to GO evacuating early when a fire starts. www.wildlandfirersg.org

4

Firewise Community

National program managed by the National Fire Protection Association (NFPA). Recognition Program to communities that have obtained a community wildfire risk assessment, complete a Community Wildfire Protection Plan (forming a board or committee), conduct a Firewise Day annually and invest a minimum of \$2.00 per capita in local Firewise actions. www.firewise.org

5

Fire Adapted Community (FAC)

FAC is a knowledgeable, engaged community where actions of residents and agencies in relation to infrastructure, buildings, landscaping, and the surrounding ecosystems lessen the need for extensive protection actions and enable the community to safely accept fire as part of the surrounding landscape. The concept of fire adapted communities does not refer to a specific program but a desired end state. It is also the second goal of the National Cohesive Strategy. www.fireadapted.org

FREQUENTLY ASKED QUESTIONS ON THE POLICY ADDRESSING UTAH'S CATASTROPHIC WILDFIRE REDUCTION STRATEGY (CatFire)



Q: Why is this change being proposed?

A: The Utah State Legislature and Governor Herbert have both concurred in directing the Division of Forestry, Fire & State Lands to develop a Comprehensive Statewide Wildland Fire Prevention, Preparedness and Suppression Policy. In addition, state statute contains potentially conflicting direction; currently, there is no way for the State of Utah to assist municipal governments financially. The policy change will enable the State to include all jurisdictions. With trends in wildfire costs, the current practices are not sustainable.

Q: Is participation mandatory or compulsory?

A: Participation is not required. Local governments are encouraged to learn the potential benefits and decide if participation is right for them. The system is opt-in.

Q: What is the "Participation Match" (PM)?

A: The PM is a calculated dollar amount that each city, town or county is responsible for meeting in order to fulfill their responsibility and receive State coverage for the payment of catastrophic wildfires that occur within their boundaries.

Q: Does the city/county pay the PM to the State?

A: No. The State does not require any payment of the PM. Participating governments conduct *prevention, preparedness and mitigation* actions and track the eligible expenses and provide documentation to satisfy their PM amount.

Q: How is the Participation Match calculated?

A: Two factors are used to calculate the PM: 1) Historic Wildfire Cost Average over 10 years with the highest and lowest cost years discarded. 2) Actual wildfire risk based on a wide-ranging and inclusive analysis using the State's Risk Assessment Model.

Q: How can I reduce my Participation Match?

A: The types of activities you choose to carry out in satisfying your PM can actually cause your match amount to decline over time. As *prevention, preparedness and mitigation* work is done, your score in the Risk Assessment Model will go down and as your costs go down, your Historic Wildfire Cost Average will also decline.

Q: What are my city/town/county's responsibilities when it comes to wildfire suppression?

A: All participating local governments are required to conduct initial attack, suppressing wildfires as aggressively as possible. As wildland fire training and apparatus are enhanced, your percent of wildfires caught in initial attack will also go up. This will result in a decline in Historic Wildfire Cost Average. Once a wildfire has outpaced local capacity, the fire costs can be delegated to the State.

Q: Who pays for initial attack? Can it be counted toward a city/town/county's PM?

A: The city, town or county pays for its own initial attack along with its other emergency response costs. Initial attack costs cannot be counted toward PM. As part of participation, cities, towns and counties **DO NOT PAY FOR ANY AIRCRAFT** even if the aircraft is used in initial attack.

Q: When is a wildfire considered to be beyond "Initial Attack"?

A: There are 4 ways for a wildfire to transitioned into a delegation of financial responsibility to the State:

1. If the local government(s) decide to transition out of initial attack
2. If wildfire suppression resources are ordered through one of the Interagency Fire Centers
3. If a wildfire enters federally/state-managed land.
4. At the discretion of the State Forester

Q: How does this impact my city/town/county's ability to participate in decision making during a wildfire?

A: Unified command will be established and local governments will be a valued partner in deciding objectives and strategies for wildfire suppression even after a delegation of financial authority has been executed.

Q: Once participation begins, can a city/town/county discontinue participation?

A: A participating government agency can discontinue participation at the conclusion of the current agreement year.

Q: How is this policy change going to affect my city/town/county's wildfire costs?

A: If the right type of work is done to satisfy the local government's PM, wildfire risk **WILL** go down. With public cooperation, fewer human-caused wildfires will occur and initial attack will be more effective. These two results drive down risk which (all other factors remaining equal) will in turn cause the Risk Assessment calculation to decrease.

Projected Utah Wildfire Risk Index Millville

City of the 5th class

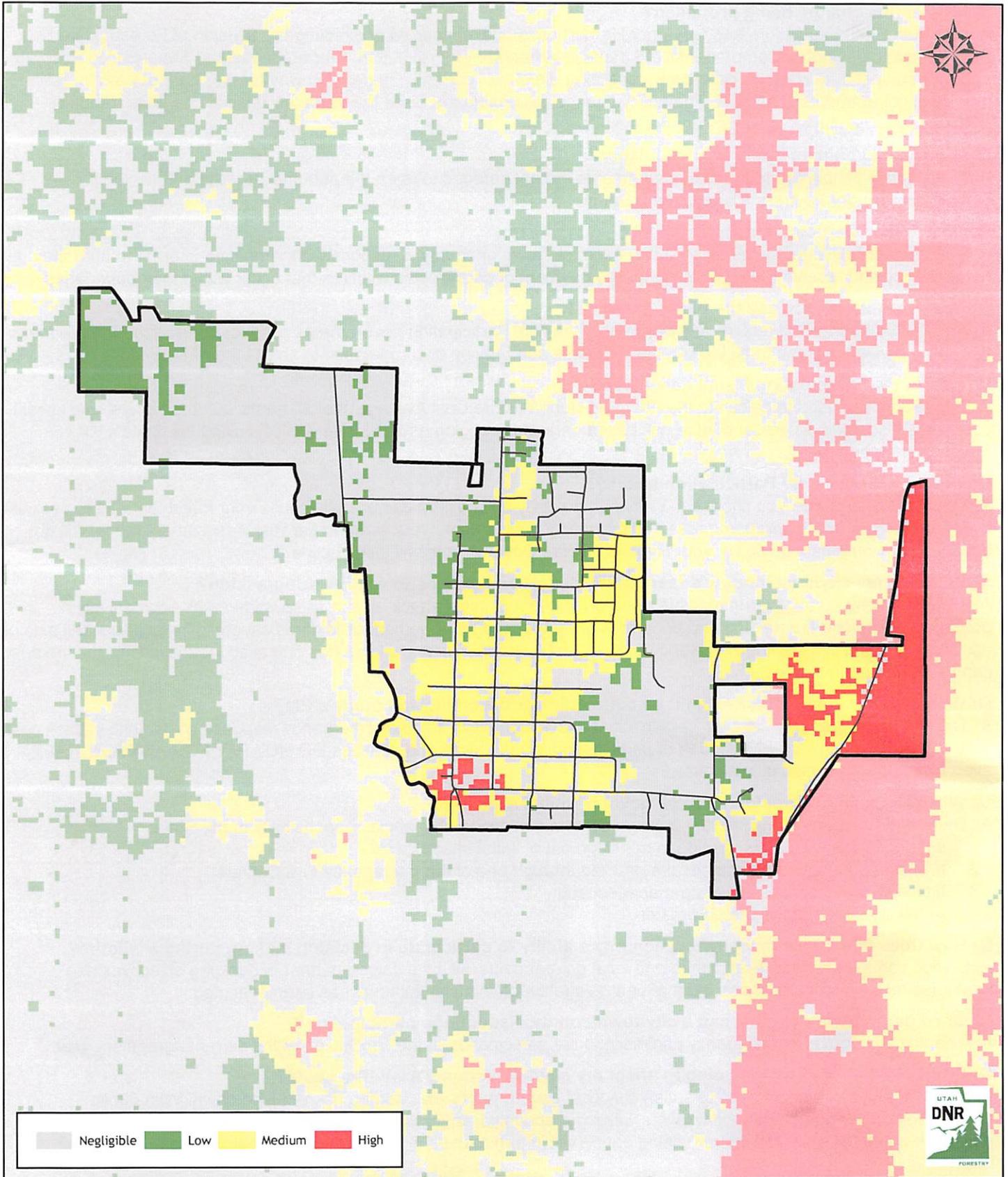
Medium: \$2.00/acre, High: \$3.50/acre

Low Risk: 1,038 Acres (68%)

Medium Risk: 342 Acres (23%) - \$685

High Risk: 135 Acres (9%) - \$474

Participation Match Total: \$1,159



0 0.4 0.8 1.6 Miles

1:30,000

PARTICIPATION MATCH ACTIONS

For Local Governments

(Suggested actions, not a conclusive or final list. Other actions will be added as appropriate)



WILDFIRE PREVENTION

Activities directed at reducing the number of human-caused fires. *(Goal: Fire-Adapted Communities)*

- Costs of wildfire prevention campaigns
- Costs of wildfire mitigation educational materials (defensible space, firewise landscaping etc)
- Costs of implementing Ready, Set, GO! program
- Law enforcement patrols to enforce fire restrictions and/or burn permit violations
- Volunteer hours for meetings and events that promote plan or implement CWPPs
- Costs of wildfire prevention media campaigns/ PSAs
- Costs of designing, producing and installing community awareness and/or wildfire prevention boards/displays

WILDFIRE MITIGATION (50% min)

Actions taken to reduce or eliminate risks to persons, property or natural resources. *(Goal: Resilient Landscapes)*

- Costs of equipment and labor (including volunteer hours) used to reduce hazardous fuels in accordance with CWPP (*i.e. fuel breaks, prescribed fire, timber harvests and certain activities that support grazing*)
- Costs or volunteer value of equipment and labor toward ongoing maintenance of existing CWPP fuel reduction projects
- Volunteer hours toward removing hazardous fuels from community common areas identified in CWPPs
- Volunteer hours toward improving ingress/egress in community common areas identified in CWPPs
- Costs associated with community fuel reduction events (*i.e. chipper days*)
- Costs of vegetation management equipment

WILDFIRE PREPARATION (25% max.)

Activities that lead to a safe, efficient and capable wildfire suppression response *(Goal: Strong Initial Attack Capability)*

- Costs of improving wildland fire apparatus, communication or support
- Costs of improving or creating additional ingress/egress into Wildland Urban Interface (WUI) areas identified in CWPPs
- Costs of improving or increasing firefighter access to secondary water systems through hydrants, tanks or drafting sites
- Actual costs for providing wildfire suppression training to fire department and/or emergency management personnel
- Volunteer hours spent in training for wildland fire suppression
- Costs of wildland-specific Personal Protective Equipment (PPE)
- Costs of producing and installing road signs and address markers (including evacuation routes) as part of a CWPP
- Costs of certifying bulldozer operators
- Costs associated with enforcement of WUI code
- Costs associated with installing/maintaining helicopter dip sites
- Costs of inspecting resident defensible space work to certify for individual tax incentives
- Costs of producing and/or updating city emergency response plans that address CWPPs
- Costs of land-use planning that support objectives of CWPPs
- Costs supporting the development of Community Wildfire Protection Plans (CWPPs)
- Costs associated with gaining "Firewise Community" recognition

Activities that DO NOT qualify:

- Any activity funded by other state or federal funds
- Any previously-matched prevention/preparedness
- Costs of state or federally-provided trainings
- Costs of initial attack suppression of wildfires
- Costs of improving culinary water systems
- Costs to improve individual structures or lots
- Costs of existing county employees or programs including weed departments

**RESOLUTION 2015-
A RESOLUTION ADOPTING THE 2015 PRE-DISASTER MITIGATION PLAN:
BEAR RIVER REGION**

WHEREAS, Millville City Council recognizes the threat that natural hazards pose to people and property with Millville City; and

WHEREAS, Millville City has participated in the creation of a multi-hazard mitigation plan, hereby known as the 2015 PRE-DISASTER MITIGATION PLAN: BEAR RIVER REGION in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, 2015 PRE-DISASTER MITIGATION PLAN: BEAR RIVER REGION identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Millville City from the impacts of future hazards and disasters; and

WHEREAS, adoption by Millville City Council demonstrates their commitment to hazard mitigation and achieving the goals outlined in the 2015 PRE-DISASTER MITIGATION PLAN: BEAR RIVER REGION.

NOW THEREFORE, BE IT RESOLVED BY Millville City, Utah, THAT: Millville City Council adopts the 2015 PRE-DISASTER MITIGATION PLAN: BEAR RIVER REGION.

This resolution shall be effective on the date it is adopted.

Dated this day of 2015.

Signed

Michael E. Johnson, Mayor
Millville City Corporation

ATTEST

Rose Mary A. Jones, City Recorder

COUNCILMEMBER	YES	NO	ABSENT	ABSTAIN
Michael Callahan				
Cindy Cummings				
Julianne Duffin				
Mark Williams				
Ryan Zollinger				

Link to BRAG Pre-Disaster Mitigation Plan

<http://brag.utah.gov/pre-disaster-mitigation-plan-draft-2015/>

Pre-Disaster Mitigation Plan Overview 2015

INTRODUCTION & PLAN PURPOSE

The three northernmost Utah counties that make up the Bear River Region are vulnerable to natural, technological, and human caused hazards that have the possibility of causing serious threat to the health, welfare, and security of our citizens. The cost of response and recovery from potential disasters, both in terms of potential loss of life or property, can be lessened when attention is turned to mitigating their impacts before they occur or re-occur.

This plan attempts to identify the region's hazards, understand our vulnerabilities and craft solutions that can significantly reduce threat to life and property. The plan is based on the premise that hazard mitigation works! With increased attention to managing natural hazards, communities can do much to reduce threats to existing citizens and avoid creating new problems in the future. In addition, many solutions can be implemented at minimal cost.

This is not an emergency response or management plan. Certainly, the plan can be used to identify weaknesses and refocus emergency response planning, which is an important mitigation strategy. However, the focus of this plan is to support better decision making directed toward avoiding future risks, and the implementation of activities or projects that will eliminate or reduce the risk for those that may already have exposure to a natural hazard threat.

How The Plan Is Organized

Section 1 introduces the plan, outlines the plan including scope, purpose, and goals, lists participating communities, and includes commentary on changes in the plan from earlier versions. Section 2 documents the planning process, public involvement, and summarizes information on natural hazards in the Bear River Region. Section 3 gives a general regional background including basic demographic, economic, and physiographic characteristics.

Section 4 is the Bear River Regional Risk Assessment. Because of the uniformity of the hazard risk throughout the region and the similarity of vulnerabilities, severe weather,

drought, agricultural hazards, radon, and problem soils were analyzed at the regional level. This section also includes commentary regarding implications of the potential effects of natural hazards on future development. Section 5, 6, and 7 includes natural hazard risk assessments for cities, towns, and the unincorporated county areas for Box Elder, Cache, and Rich Counties, respectively. Section 8 documents local community planning and technical capability to implement mitigation strategies, and Section 9 discusses plan implementation, funding, and public involvement.

How The Plan Should Be Used

First, the plan should be used to help local elected and appointed officials plan, design, and implement programs and projects that will help reduce their community's vulnerability to natural hazards. Second, the plan should be used to facilitate inter-jurisdictional coordination and collaboration related to natural hazard mitigation planning and implementation. Third, the plan should be used to develop or provide guidance for local emergency planning. Finally, if adopted, the plan will bring communities in compliance with the Disaster Mitigation Act of 2000, qualifying jurisdictions to apply for funding for pre-disaster mitigation projects and for receiving federal aid in the event of a presidentially declared disaster.

What Is Hazard Mitigation?

Hazard mitigation is defined as any cost-effective action(s) that has the effect of reducing, limiting, or preventing vulnerability of people, property, and the environment, to potentially damaging, harmful, or costly hazards. Hazard mitigation measures, which can be used to eliminate or minimize the risk to life and property, fall into three categories. First, are those that keep the hazard away from people, property, and structures. Second, are those that keep people, property, and structures away from the hazard. Third, are those that do not address the hazard at all but rather reduce the impact of the hazard on the victims, such as insurance. This mitigation plan has strategies that fall into all three categories.

Hazard mitigation measures must be practical, cost effective, and environmentally and politically

acceptable. Actions taken to limit the vulnerability of society to hazards must not in themselves be more costly than the value of anticipated damages. However, some projects may require financial commitments from local jurisdictions without any measurable monetary reward or benefit, although it may save lives and priceless community assets. Some initial financial investments for projects which lessen risk to local residents and property, may also pay economic dividends later on if legal issues arise.

However, the primary focus of hazard mitigation actions must be on capital investment decisions, and based on vulnerability. Capital investments, whether for homes, roads, public utilities, pipelines, power plants, or public works greatly determine the nature and degree of hazard vulnerability for a community. Once a capital facility is in place, very few opportunities will present themselves over the useful life of the facility to correct any errors in location or construction with respect to hazard vulnerability. It is for these reasons that zoning and other ordinances - which manage development in high vulnerability areas along with building codes and guidelines, are often the most useful mitigation approaches a city can implement.

In general, mitigation measures are the most neglected programs within emergency management. Since the priority to implement mitigation activities is generally low in comparison to perceived threat, implementation may be a timely and highly involved process. Mitigation success may be achieved however, if accurate information is portrayed through complete hazard identification and impact studies, followed by effective mitigation management. Hazard mitigation is the key to eliminating long-term risks to people and property from hazards and their effects. Preparedness for all hazards includes response and recovery plans, training, development, management of resources, and the need to mitigate each jurisdictional hazard.

This multi-jurisdictional plan evaluates the potential impacts, risks and vulnerabilities associated with natural hazards for jurisdictions in the Bear River Region. The plan supports, identifies, describes, and documents potential

mitigation projects for municipalities and the unincorporated areas in each county. The suggested actions and plan implementation contained in this document for local governments may reduce the impact severity of future disasters. Only through coordinated partnerships with emergency managers, political entities, public works officials, community planners, the general public, and other individuals working to implement this program will the goals of the plan be accomplished.

For most of the State of Utah, the planning services of the Utah Association of Governments (AOG's) have been utilized to develop the mitigation plans for all jurisdictions in the state. However, some individual jurisdictions have recently completed the plan on their own. For this plan update, Box Elder, Cache, and Rich County emergency managers requested assistance from BRAG to update the plan for the entire region.

The seven Utah Associations of Governments are comprised of the following regional entities:

1. Bear River Association of Governments
2. Wasatch Front Regional Council
3. Mountainland Association of Governments
4. Six County Association of Governments
5. Southeast Utah Association of Local Governments
6. Five County Association of Governments
7. Uintah Basin Association of Governments

Plan Purpose

This Pre-Disaster Mitigation Plan is meant to provide information regarding threats to life and property associated with natural hazards to local and State governments as well as interested agencies and the general public. The intent of this document can be summarized into several overarching goals which:

- Fulfill Federal, State, and local hazard mitigation planning requirements
- Promote pre- and post-disaster mitigation measures, short and long-range strategies

that minimize suffering, loss of life, and damage to property resulting from hazardous or potentially hazardous conditions to which citizens and institutions within the State are exposed.

- Eliminate or minimize conditions which would have an undesirable impact on our citizens, local infrastructure, economy, environment, and the well-being of local, county, and state governments.

Plan Scope

The Bear River Association of Governments (providing regional planning assistance to Cache, Rich, and Box Elder Counties) will submit a current updated plan to the Utah Division of Emergency Services. Future monitoring, evaluating, updating and implementing will take place as new incidents occur and/or every five years. The hazard mitigation plans and strategies will also be included in local planning efforts and plans.

Overall Goals

Coordinate with participating local governments to develop a regional planning process that will meet Local Mitigation Plan Review Tool provided by FEMA. Additional goals include planning to meet expectations set by the State and addressing the concerns of local jurisdictions.

Local Goals

The goals below form the basis for the development of the PDM Plan and are shown from highest to lowest priority. They are:

1. Protection of life before, during, and after the occurrence of a disaster.
2. Protection of emergency response capabilities (critical infrastructure).
3. Improved communication and warning systems.
4. Integration of appropriate emergency medical services and use medical facilities during a natural disaster event.
5. Identification of critical facilities and community infrastructure.
6. Government collaboration across jurisdictional boundaries during natural hazard events.
7. Protection of developed property, homes and businesses, industry, educational opportunities, and the cultural fabric of a community, by combining hazard loss reduction strategies with a community's environmental, cultural/historical, social, and economic needs.
8. Protection of natural resources and the environment when considering mitigation measures.

Regional Goals

1. Eliminate or reduce the long-term risk to human life and property by identifying natural hazards.
2. Aid both the private and public sectors in understanding the risks they may be exposed to from identified hazards, and work with local governments and partners to find mitigation strategies that reduce those risks.
3. Decrease liability for local governments by educating elected officials and staff on natural hazard mitigation and issues.
4. Minimize the impacts of natural hazard risks when they cannot be avoided.
5. Mitigate the impacts of damage as a result of identifying hazards.
6. Implement mitigation strategies in a way that minimizes negative environmental impacts.
7. Provide a basis for funding projects which are outlined as hazard mitigation strategies.
8. Maintain and improve a regional platform to enable communities to take advantage of shared goals, resources, and other available resources.

Prioritization of Mitigation Strategies

A guiding factor in prioritizing mitigation strategies was the principle that mitigation should provide the greatest amount of good to the greatest number of people, after considering funding, staffing, and other resource constraints.

Recurrence intervals, past events, and damage estimates compiled during the assessment of vulnerability in this plan were also considered for priority and time line values. While there was not a technical cost-benefit analysis for determining mitigation strategies during this planning process, the above criteria were considered for prioritization.

ADOPTION & UPDATING THE PLAN

Participating Jurisdictions

Table 1: Participating Jurisdictions in the Bear River Region

RICH COUNTY	CACHE COUNTY
Garden City	Amalga
Laketown	Clarkston
Randolph	Cornish Town
Woodruff	Hyde Park City
BOX ELDER COUNTY	Hyrum City
Bear River City	Lewiston City
Brigham City	Logan City
Corinne City	Mendon City
Deweyville	Millville City
Elwood	Newton
Fielding	Nibley
Garland City	North Logan City
Honeyville City	Paradise
Howell	Providence City
Mantua	Richmond City
Perry City	River Heights City
Plymouth	Smithfield City
Portage	Trenton
Snowville	Wellsville City
Tremonton City	
Willard City	

Local Adoption of The Plan

On June 1, 2015, the Draft Pre-Disaster Mitigation Plan was put on the BRAG website,

located at www.brag.utah.gov. A hard copy of the plan was also available at the BRAG office for viewing. After a 30-day public comment period, comments from communities, the public, county working groups, as well as the Utah Division of Emergency Services were integrated into the plan. The draft plan was then sent to FEMA Region VIII for review. After revisions to the draft plan were completed, letters were sent to each jurisdiction explaining the benefits of adopting a FEMA-approved plan and encouraging all 42 jurisdictions in the Bear River Region to adopt the plan. Blank promulgation forms were sent to chief elected officials, and communities were asked to adopt the plan, and send the completed promulgation forms to BRAG for inclusion as an appendix in the plan. The final plan was also made available in its entirety by section on the BRAG website found at www.brag.utah.gov. Individual links for each community section were made available.

Plan Updates & Changes

During the 2014-2015 planning process, it was determined that some aspects of the plan should be updated as needed and some should remain as they were in the 2009 version, with minor edits as needed. Background information, such as hazard definitions, the purpose for the plan, scope, goals, local adoption, and other sections remained relatively the same in both plans. However, some changes in this version were necessary, such as general document layout, the planning process, economic and demographic information updates, risk assessment methods and data, mitigation strategy updates, and the community capability assessments. Following are some of the changes that were made to these sections.

Document layout and organization has been altered to create a user friendly and accessible document. Some charts, tables, data, and other information was moved to the appendix to create a more user friendly layout. County risk assessments were renamed to provide a community emphasis, such as "Box Elder County – Community Risk Assessments" to give a sense of ownership for communities and to make the plan easier to navigate. Also, the term "Annex" was removed to avoid confusion and sections were renamed "Box Elder County Hazard Mapping," for example, to

simplify sections.

The planning process was altered slightly as well. The first group that met about the plan was comprised of emergency managers, planners, and others involved in emergency planning in the region. BRAG staff sought input for, and built county working groups based on, meeting input and references from those initial contacts. The working groups were also added to as needed depending on what existing working group members thought was necessary. BRAG staff invited all jurisdictions in the region to send representatives as part of the working group, and invited State and Federal Agencies with land management responsibilities in the Bear River Region. Any other suggestions for members were integrated into the working group as needed. The use of surveys was employed similarly to the 2009 plan, and letters and e-mails were sent regularly throughout the process to each community inviting representatives to meetings, and giving many opportunities for community involvement. BRAG staff also made many phone calls to communities to solicit information critical to the plan.

Understandably, economic and demographic data was updated in the plan, as was historical data and natural hazard event data. New sources were sought where data was limited in the 2009 version, such as historical landslide data, historical wildfire data, and earthquake epicentre data.

New risk assessment methods and up-to-date GIS data was also used in this plan in an attempt to reflect current conditions (See Appendix C). New landslide susceptibility, geological faults, wildfire, dam failure, and floodplain data was utilized. Steep slopes were added to address some problem soil areas. The overlay analysis methodology from 2009 proved to be useful for this analysis, although parcel data and any available new hazards data was used. Model Builder in ArcGIS was used to make the analyses uniform for the entire region where possible. Rich County still had incomplete parcel data, and it is anticipated it will be incomplete for some time. However, updated recorder data was linked to the GIS layers to create a more accurate data set where it existed.

A new wildfire hazard data set was also used for this plan update. Data from the West Wide Wildfire Risk Assessment, completed in 2013 by the Oregon Department of Forestry, was utilized to provide a more accurate risk assessment region-wide.

Mitigation strategies were also updated through interaction with participating communities. Some strategies from 2009 were completed, those that were still applicable were carried over into this plan, and new strategies were created by local governments to better address mitigation issues.

Some communities in the region have either grown and added new employees or now have greater data and GIS capabilities. These capabilities were documented at the end of this document as well, with the realization that some communities will continue to have needs for hazard mitigation planning assistance from BRAG and other State and Federal agencies in the future. BRAG staff will continue to be a resource for those communities.

MITIGATION STRATEGIES IMPLEMENTED FROM 2009-2015

- **North Logan** - Earthquake training (Utah Shakeout). Working with canal companies. Wildfire planning. Geotechnical Requirements. Using flood areas as recreational opportunities.
- **Logan** - Improvements were made to 600 W bridge to prevent overtopping road during floods. Additional water storage still ongoing for the next 5 years.
- **Richmond** - Incorporated the bulk of the strategies used in the 2009 program, but did make some minor changes. Worked with irrigation company to minimize flooding.
- **Trenton** - Earthquake, landslide, and wildfire planning.
- **River Heights** - Sponsored a seminar on the dangers of radon gas, and several residents have installed fan driven ventilation systems.
- **Millville** - Regulating building in wildfire prone areas. Earthquake hazards planning

and ordinance work.

- **Smithfield** - Identified the floodplain running through the city, and have taken steps through the cities ordinance and general plan to minimize the effects of flooding. Smithfield works through LDS stakes with emergency preparedness.
- **Tremonton** - Wildfire protection: Cooperative Wildfire Protection Plan (CWPP) was established Feb 28, 2013 involving residents of Tremonton, Garland, and Box Elder County (unincorporated). Resulting from this agreement and in cooperation with FFSL, US Dept. of Agriculture, Box Elder County, Tremonton, and Garland Fire Departments, a fire break was created above affected homes to protect both residential areas and grazing land.
- **Garland** - Holding table top trainings once a month. These table tops have been covering waterlines, communication, health of others.
- **Brigham City** - Work with the Utah Division of Water Rights and other groups to utilize Emergency Action Plans on a local level. Develop or update an environmental safety zone - with identified hazard areas, disclosure/education, hazard maps. Wildfire Defense Program. Perform seismic upgrades to existing Brigham City Library to meet current building codes. Protect 36" Penstock water line coming from Mantua to Brigham City by burying it. Trim trees to keep limbs clear of electrical power system. Reconcile current development with soon to be adopted FEMA floodplain maps for Box Elder County for NFIP communities. For non-NFIP communities, talk with Utah ESHS about the benefits of NFIP.

In this version of the plan, individual community sections were created to make the document more accessible to local community leaders, staff, and emergency managers/planners on the local, state, and federal levels.

A more robust risk analysis was also completed for this plan update. Better GIS data was used where available, including a wildfire risk data set created by Oregon State University in 2013. Updated parcel and US Census data was also utilized, as well as updated geologic hazards data from the Utah Geological Survey. Potential loss analyses were also more comprehensive, and included new data sets such as:

- Natural gas line data (Questar Gas)
- Agricultural amenities
- Recreational amenities
- Natural amenities
- More comprehensive list of Critical Facilities

BRAG staff also tried to make the meetings for the update process more interesting and appealing to elected officials and others. Six natural hazards specialists from state and federal agencies were invited to give presentations at the three county mitigation strategy meetings held. They presented realistic and feasible ideas for mitigating the effects of wildfire, flood, landslides, geologic hazards, and severe weather. Elected officials and staff were invited to ask questions and learn from these specialists.

OTHER CHANGES FROM 2009-2015

One of the most substantial changes to this updated plan is the document layout and organization. Most of the large charts and extraneous background information was consolidated and put in the appendix.

Councilmember Reports October 8, 2015

Sign into Millville – Mayor Johnson/Councilmember Duffin
Fees in Lieu of Water Rights – Gary Larsen/Bob Fotheringham
Review of Group Residential Facilities – Coordinator Harry Meadows
Volunteerism Always Pays (VAP) Projects provided by Wal-Mart – Mayor Johnson
City Artifacts – Councilmember Callahan
Old Mill Day Committee – Councilmember Duffin
CERT Training Program – Councilmember Cummings
Water Rights Recommendation from Planning Commission – Mayor Johnson
High School – Councilmember Duffin
Schedule for Newsletter Article –October, Councilmember Williams; November –
Councilmember Zollinger; December – Mayor Johnson; January – Councilmember
Callahan, February – Councilmember Cummings, March – Councilmember Duffin. (To
be turned in by the 6th of each month)