



State of Utah

Risk MAP Business & Program Management (PM) Grant Plan – 2015 Update



Department of Public Safety
Division of Emergency Management
Salt Lake City, Utah
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I. Executive Summary

This business plan was prepared by the Utah Division of Emergency Management (DEM) for the Federal Emergency Management Agency (FEMA) under a Cooperating Technical Partners (CTP) grant to provide Risk MAP program management and mapping functions. This plan will report on the State's progress, highlight State's capabilities and resources, present the State's future business plans & needs, identify any concerns, and address outlook on FY15 program.

This business plan update includes the following main components:

- Program Functionality Funding at the State Level
- Program Management Activities
- Technical Mapping Activities
- Risk MAP Performance Measures
- CTP Program Report
- Planned Project Priorities
- Prioritization of Unmet Needs in Utah
- Yearly Program Expenses

Utah's Role

In 2004, the State of Utah began dedicating mapping staff and resources to the Map Modernization Program. Over the last four years DEM has provided FEMA with all the necessary ingredients to successfully implement the goals and objectives of FEMA's Risk MAP Program in Utah.

The State of Utah Risk MAP/Cooperating Technical Partner (CTP) has been formally trained in Cooperating Technical Partnerships, Digital Flood Insurance Rate Maps, Multi-Hazard Information Portal, Mapping Information Platform and Coordinated Needs Management Strategy.

The State of Utah has in the past and may in the future have leverage and cost-sharing opportunities with the help through local partnerships and efforts.

The State of Utah has prepared for and assembled the capacity to perform all activities necessary to guide and manage the State's mapping priorities through mapping flood hazards, performing risk assessments, acquiring detailed topographic data, encouraging mitigation action, map adoption, and promote local ownership of new maps and map products.

The State of Utah continues to engage in and promote FEMA programs and build upon its relationship with Regional staff. The State is optimistic that these efforts will enhance the implementation of this shared vision for the Risk MAP future.

II. Program Functionality Funding at the State Level

Over the past five years DEM has received an average of \$620,000 in project grants and \$80,000 in program management grants for the Risk MAP Program. If DEM were to receive reduced funding for the Risk MAP Program, the ability to deliver quality data that increases public awareness and lead to action that reduces risk to life and property would coincide with the percentage of reduced funding:

Currently, DEM utilizes 100% of the management funding allocated from FEMA to carry out the statewide program. As of July 2015 the state has utilized 99% of the \$78,000 allocation. If DEM were to have a 50% reduction, the state would have to reassign 50% of the Risk MAP/CTP Coordinator duties to other areas within the divisions Mitigation or Operations Sections. DEM would re-allocate funding from either a Pre-Disaster Mitigation grant or the Emergency Management Performance Grant as the state does not currently have additional state dollars to put towards the Risk MAP program. All state dollars are allocated by the legislature and an additional appropriation would be needed to fund the other 50% of the program. A 25% reduction would follow the same guidelines as a 50% reduction.

In the case the Risk MAP/CTP Program were to be completely defunded from the State of Utah, DEM would reassign the Risk MAP/CTP Coordinator to the Operations Section and request to leverage the Community Assistance Program - State Support Services Element Program (CAP-SSSE) funding to carry out a limited outreach program in conjunction with Community Assisted Visits (CAVs) for the remaining Risk MAP projects.

The state has contributed in-kind state dollars for many years to the Risk MAP/CTP Program through the Mitigation and Recovery Section Manager as well as the Operations Bureau Chief, both of whom are paid out of state dollars.

III. Program Management Activities

DEM has received Risk MAP/CTP grants to perform management support for Risk MAP activities. This grant currently is providing the state with roughly \$5,000 for the remaining FY14 grant, to build state capacity in the form of a Risk MAP/CTP Coordinator. This grant is critical to the State's fulfilling this position as a full managing state and will depend on future Risk MAP/CTP grants to maintain its Risk MAP/CTP Coordinator and current mapping efforts. To date, the State's most successful management activities have been through Outreach, Mapping Needs Assessments, Building Partnerships, and Map Adoption. In addition, the State is formally trained in reporting and tracking tools developed by FEMA specifically for Risk MAP and CTP activities (WISE, MHIP, MIP). The State has been formally trained in Needs Management through the CNMS program and is a Certified Floodplain Manager (CFM).

The Utah Risk MAP/CTP Coordinator will perform program management activities and technical guidance activities as described in the Risk MAP/CTP guidance tables below:

Activity	Task Description
Program Management	<p>Program management is the active process of managing multiple projects which need to meet or exceed pre-defined performance metrics. Integration and communication are key aspects of program management. The following are tasks that are associated with this activity:</p> <ul style="list-style-type: none"> • <u>State and Local Business Plans and/or updates –</u> The Utah Risk MAP/CTP Coordinator updates and submits the State’s Business and PM Plan yearly to FEMA Region VIII. • <u>Managing Technical Mapping Activities –</u> The Risk MAP/CTP Coordinator uses various spreadsheets and other tools to track progress in the Risk MAP Program. • <u>Outreach –</u> The Utah Risk MAP/CTP Coordinator is committed to providing enhanced communication to the user community. Through the development and distribution of brochures, newsletters, and meetings, the community will be better informed of all aspects of floodplain mapping, Risk MAP, mitigation efforts, NFIP regulations, and available products and services. • <u>Community Engagement –</u> The Utah Risk MAP/CTP Coordinator is committed to engaging communities through Risk Communication and working with the Communities to make them aware of risk and taking action to reduce risk. • <u>Providing training to State and Local Officials –</u> The Utah Risk MAP/CTP Coordinator works in conjunction with the Utah NFIP Coordinator to ensure proper training in and out of the state for Prime Engineering Contractors, State and Local officials. • <u>Staffing –</u> Utah has an experienced team of staff and consultants dedicated to activities that promote the flood mapping process and the adoption of effective maps by NFIP communities. This includes the Utah Risk MAP/CTP Coordinator, the Utah NFIP Coordinator, the Utah Natural Hazards Section Manager, and the prime engineering contractors. There is also staff available to assist in mapping needs to include the State Hazard Mitigation Officer, the AGRC staff, members of the State

	<p>Hazard Mitigation Team which include the Dam Safety office, Corps of Engineers, Division of Water Rights, and Division of Water Resources. These people can assist in reviewing and providing technical expertise as needed and also assist in future Risk MAP needs.</p> <ul style="list-style-type: none">• <u>Pilot Projects -</u> Utah County – The Utah Risk MAP/CTP Coordinator plans to establish the Local Levee Partnership Team to walk through LAMP procedures, collect existing data and system knowledge, evaluate hydrology, review information to segment levees and screen out which procedures apply to develop a Levee Analysis and Mapping Plan.• <u>Coordinated Needs Management Strategy (CNMS) data collection/population -</u> The Utah Risk MAP/CTP Coordinator, along with the Utah NFIP Coordinator and the Natural Hazards Section Manager for Utah Division of Emergency Management, helps identify and assess the unmet mapping needs for the state by information given through community meetings, CAV's, Discovery meetings, state and local floodplain administrators, contractors and FEMA. All unmet needs are gathered and housed into the CNMS database as well as contractor spreadsheets and state spreadsheets and Utah's Risk MAP Project Priorities list.• <u>Mitigation Planning Technical Assistance -</u> The Utah Risk MAP/CTP Coordinator is committed to working with the State Hazard Mitigation Officer (SHMO), State Hazard Mitigation Team (SHMT) and all Mitigation Plans throughout the state to ensure proper alignment and integration with regards to the State's Risk MAP Program and projects.
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IV. Technical Mapping Activities

The Utah Risk MAP/CTP Coordinator will direct and guide a consultant to perform such services.

Tasks	Description
Base Map Acquisition	This is a limited funding task where funding can only be provided for base map preparation tasks at the discretion of the Regional Project Officer.
Discovery	Up to 10 percent of the total estimated funding may be provided to do an extensive project scope that leads to the development of the MAS.
Outreach	Up to 10 percent of the total estimated funding may be provided to perform outreach activities (for specific and applicable Risk MAP projects) that directly support the mapping project.
Riverine Floodplain Analyses and Floodplain Mapping (Riverine)	The CTP partner develops digital engineering data and floodplain mapping using GIS-based or traditional hydrologic and hydraulic modeling. This task involves many different levels of floodplain analysis.
DFIRM Preparation	The CTP partner prepares a DFIRM that meets FEMA specifications.
Digital Topographic Data Development	The CTP partner develops digital topographic data for flood hazard identification purposes.
Independent QA/QC Review	The CTP partner performs the independent QA/QC review of specific products and activities.
Post-preliminary Processing	The CTP partner performs post-preliminary processing of flood map studies.

V. Risk MAP Performance Measures

With the initiative of Risk MAP, FEMA’s vision is to deliver quality data that increases public awareness and leads to action that reduces risk to life and property. The key performance measures to track Risk MAP are Deployment, NVUE, Action and Awareness. These measures are to be updated and reported on a regular basis, monitored for progress and taking corrective actions, as necessary, so that the desired outcomes can be achieved. At this time the goal for Region VIII by the end of FY14 is to achieve 44% in Deployment, 22% in NVUE, 50% Action, and 70% Awareness.. These targets are population based, and attainment of these goals will drive Regional funding for future fiscal years.

Deployment for Utah

FEMA Region VIII, in conjunction with the State of Utah, has come up with the background, objectives and benefits for a Jordan Watershed Risk MAP and Mitigation Planning Project that was held in November 2012. The Jordan Watershed counts for 37% of Utah's total population.

FEMA Region VIII, in conjunction with the State of Utah, has come up with the background, objectives and benefits for Cache County Discovery. The Discovery Meeting is to be held this fall.

Weber and Davis County Projects will also count towards deployment for Utah. The CTP Prime Engineering Contractor is currently pursuing Davis/Weber Counties (both PMR's), as a Risk MAP study by various metrics, but due to the ongoing nature of these studies, Risk MAP aspects will be "added-on" to the existing studies mid-study or started anew as separate initiatives in close coordination with the ongoing studies.

The Utah Risk MAP/CTP Coordinator in conjunction with FEMA Region VIII Risk Analysis Division and BakerAECOM, held the very first Discovery Meeting for Utah in March of 2011 for the Upper/Lower Weber Watershed's. Many partnerships were developed at this successful meeting. A Kick-off Meeting was later held in February 2012 where local officials signed a Project Charter. New strategies were identified and communities were notified of Project Timeline, Strategies, Planning and Mitigation actions that will be taken.

A Kick-off Meeting was held in February 2013 for the Lower Weber Watershed where local officials attended and signed a Project Charter for the project. New strategies were identified and communities were notified of Project Timeline, Strategies, Planning and Mitigation actions that will be taken.

NVUE for Utah

NVUE data for Utah is very little. The Utah Risk MAP/CTP Coordinator has in the past and is continually gathering information and data from communities to better gage the needs in Utah. The Utah Risk MAP/CTP Coordinator will work pro-actively with FEMA to further enhance the quality of the CNMS database for Utah, in order to establish priorities going forward conforming FEMA guidelines, in particular Procedure Memorandum 56 – Guidelines for Implementation of Coordinated Needs Management Strategy.

Action for Utah

Action Measure opportunities for the Utah Risk MAP/CTP Program include:

- Leveraging non-regulatory products at the local level; conduct training on the use of these products; encourage communities to incorporate local data into the flood risk datasets; and facilitate hazard mitigation plan updates. Salt Lake County and the Jordan watershed provide immediate opportunities to do so.

- Better define flood hazard risk in key areas through Risk MAP, providing communities with data, tools, and outreach support to educate their constituents and make sound mitigation planning decisions. Direct opportunities include: FY14 levee LAMP study in Provo; future levee LAMP study in Salt Lake City; Neffs Canyon Alluvial Fan Study in Salt Lake County; First Order Approximation (FOA) for 150+ miles of non-model backed Zone A's in Salt Lake, Summit, Morgan, Utah, and Weber Counties; assessment of Utah Lake (Utah County).
- CRS participation is low in Utah, but Utah's Risk MAP/CTP Coordinator could conduct targeted outreach to key communities using a cost-benefit analysis approach and illustrate long-term benefits and insurance savings.
- Identify opportunities for communities to decrease long term risks by adopting higher freeboard in floodplain ordinances. Utah's NFIP Coordinator works with Communities to update and adopt Local Floodplain Ordinances. The NFIP Coordinator always encourages Communities to update to a higher, more restrictive ordinance to protect human life, minimize costly flood control projects and to minimize the need for rescue and relief efforts.

Awareness for Utah

Risk Awareness is measured as the percentage of local officials with flood risk awareness in Risk MAP communities. This action is measured with FEMA HQ conducting an annual Flood Risk Awareness Survey, which asks a series of risk-related questions to community officials both within and outside of Risk MAP project areas.

The Utah Risk MAP/CTP Coordinator has in the past used the help of the Risk MAP Outreach Team to communicate flood hazard risk and will continue to use their help in the way of Community Outreach Meetings, brochures, emails and websites. The Utah Risk MAP/CTP Coordinator hopes to create a user friendly website with tools and online guides for the user community. This website will contain information regarding Utah's Risk MAP Program, current studies, dates and schedule, data available, study contractor, contact information, and an interface to upload or download data where available. The Utah Risk MAP/CTP Coordinator must adhere to the Utah Department of Public Safety website standards and must be approved by department officials.

The Utah Risk MAP/CTP Coordinator would also like to use the assistance of student from the University of Utah as a scholarship mechanism to help promote the Risk MAP Program and good floodplain management by way of brochures that can be used within Utah's Communities. The Utah Risk MAP/CTP Coordinator will work closely with FEMA Region VIII how to best promote this activity in awareness.

VI. CTP Program Report

Utah's CTP Program successes have been based on the Utah Risk MAP/CTP's ability to build and strengthen partnerships and commitment to outreach and communication with its State and Local Communities. Utah is committed to providing enhanced communication to the user community through the development and distribution of brochures, newsletters, and meetings, the community will be better informed of all aspects of floodplain mapping, NFIP regulations, and available products and services. Also the Utah High and Dry newsletter will provide Risk MAP information updates.

Utah performs outreach in the form of informational mailings to include quarterly newsletters, community letters, website postings and emails throughout the year. The Risk MAP/CTP Coordinator also works in conjunction with the Utah NFIP Coordinator, the Natural Hazards Section Manager, and the Utah Floodplain and Stormwater Management Association (UFSMA) to keep the community well informed of any Risk MAP updates and any new DFIRM updates.

Effective communication is a key component to Utah's Risk MAP Program. Our outreach program enables the community to fully understand the development of non-regulatory flood risk datasets, analysis and flood maps, risk assessment tools and their role in this program. It is essential for the community to be involved from the very early stages of this program to ensure success. They are an important partner that must be aware of current Risk MAP efforts within their communities. The Utah Risk MAP Program is dedicated in their efforts to reach out to the community in better understanding the entire Risk MAP process. Beginning prior to the Discovery process, the Utah Risk MAP/CTP Coordinator is in communication with the community officials teaching them about the program, organizing the meetings, and gaining their support. Leverage is also discussed at these early communication meetings. To gain the communities' support and early buy-in allows this difficult and lengthy mapping process to successfully progress.

The goal for the Utah Risk MAP Program this year and into early 2015 is to build and create a user friendly website with tools and online guides for the user community. The Risk MAP/CTP Coordinator is currently working with the Utah Department of Public Safety IT Department to coordinate and discuss how to make such a website happen. The website will contain information regarding Utah's Risk MAP Program, current studies, dates and schedule, data available, study contractor, contact information, and an interface to upload or download data where available.

The biggest setback to making this website happen will be the budget constraints and the cooperation from the Department of Public Safety and IT Department. The Utah Risk MAP Program must adhere to all of the Department of Public Safety's rules and regulations when it comes to building a website under their name. It must look a certain way with similar colors and backgrounds with approved data and information. The Utah Risk MAP/CTP

Coordinator will keep FEMA Region VIII apprised of all issues and updates regarding the website construction.

VII. Project Report and Planned Project Priorities

Levee Projects

The Utah Risk MAP/CTP Program currently has two projects affected by the current levee guidance; Utah County and Jordan Surplus Canal. Utah County is within the Utah Lake / Provo / Spanish Fork HUC-8 watersheds.

Utah County is currently being studied as a countywide project, but due to recent guidance from FEMA Headquarters on non-model backed Zone_A's the State and FEMA Region VIII have decided to revise the preliminary with the intent of adding scope to the project. Utah County is still in paper format and the first time countywide project has recently moved forward using the seclusion methodology, secluding parts of Provo, Orem, and unincorporated Utah County along the Provo River. This countywide study went preliminary on March 31st, 2014 and two CCO meetings were held. New detailed floodplains in Alpine, American Fork, Payson, and Springville were created – all of these studies are several years old. Payson and Springville have indicated they will appeal the floodplains if an appeal period is in fact initiated. The State will now issue a revised preliminary and address the non-model backed Zone's A's, address Utah Lake, incorporate I-15 Core freeway reconstruction project and the lack of mapped floodplains on Spanish Fork Creek.

The Jordan Surplus Canal LAMP Phase 1 Project is within densely populated urban area (Salt Lake City). There is undetermined risk, inadequate floodplain delineations, unknown probability of levee failure during high flow events and substantial interest and leverage from Salt Lake County Flood Control (studies, data). Utah Risk MAP/CTP Coordinator would like to see this project move forward during this next year to coincide with the current Jordan Watershed Phase 3 Project.

FEMA Region VIII and the State have decided to move forward with multi-year phased approach to tackle the Provo Levee and Jordan Surplus Canal with a Levee LAMP Project. For FY14 and FY15 this Risk MAP study would primarily focus on establishing the framework for community engagement and project outreach as well as initiating and defining several complex engineering tasks. These tasks will require significant planning to develop scopes based on outcomes of first pass assessments, data collection and Local Levee Partnership Team (LLPT) activity outcomes. The outcome of the LLPT will include the development of a Levee Analysis and Mapping Plan. We are currently planning on being the study in FY15.

Project and Grant Status

- ***Iron County – (FY06)***
 - Appeal Period ended April 25th, 2013
 - FEMA Region VIII PTS Contractor is currently working on the Cedar City Appeal that was submitted during the appeal period. Work is expected to be completed before completion of the grant
 - Grant to expire 12/31/2015

- ***Davis County – (FY10)***
 - Preliminary date: 2/28/14
 - Appeal Resolution in process
 - Grant will expire 8/6/2017

- ***Upper/Lower Weber Watershed – (FY11 & FY14)***
 - Morgan Preliminary Date: Estimated November 2015
 - Summit Preliminary Date: Estimated Winter 2016
 - The grant will expire 9/30/2017

- ***Lower Weber Watershed – (FY12)***
 - LiDAR has been reviewed by Baker and will need additional control points to meet FEMA’s Guides and Specifications
 - New project scope is being established and Kick-Off meeting will take place fall 2015
 - Grant to expire 10/31/2017

- ***Utah County – (FY13 & FY14)***
 - The State will now issue a revised preliminary and address the non-model backed Zone’s A’s, address Utah Lake, incorporate I-15 Core freeway reconstruction project and the lack of mapped floodplains on Spanish Fork Creek
 - This will now require a new grant to accomplish the new work that is being added to scope
 - FEMA Region VIII and the State consider this new project to be an ad-hoc Risk MAP study and will require development of non-regulatory Risk MAP products

- ***Provo River Levee LAMP – (FY14)***
 - Initial Kick-Off meeting was held
 - First LLPT meeting to be held fall 2015

- ***Jordan Watershed – (FY14)***
 - Kick-Off meeting has been held and data development is underway
 - Neff’s Canyon (Alluvial Fan) Study – held a Kick-Off meeting. Will be discussing with Communities fall 2015

Planned Meetings

The Utah Risk MAP/CTP Coordinator will be working closely with the Utah NFIP Coordinator, Utah's State Hazard Mitigation Officer and FEMA Region VIII Risk Analysis Division to allow for further Risk MAP outreach meetings. Project meetings for the coming year may include:

- Jordan Watershed –
 - Neff's Canyon Alluvial Fan –
 - Communities will be notified of Project Timeline, Strategies, and preliminary review of results
 - Jordan Surplus Canal LAMP Study –
 - Local officials will be notified of the Jordan Surplus Canal LAMP Project for FY15. Data collection and Local Levee Partnership Team (LLPT) will be developed
- Utah County –
 - LLPT meetings –
 - Local officials will be notified of the Provo Levee project for FY14. Data collection and Local Levee Partnership Team (LLPT) will be developed
- Lower Weber –
 - Kick-Off Meeting –
 - Communities will be notified of Project Timeline, Strategies, and new scope
- Davis County –
 - Preliminary review of the Davis County appeal to be held with the communities participating in the appeal
- All other Utah Projects –
 - Outreach for all other Utah projects will be maintained by the Utah Risk MAP/CTP Coordinator

VIII. Prioritization of Utah's Risk MAP Projects

FY2015

Ongoing phased projects

1. Jordan Watershed Phase 3

- Continuation of the currently ongoing Jordan Watershed Risk MAP Phase 2 study
- Regulatory update of the FIS and affected panels and post-preliminary processing
- Incorporates the Neff's Canyon Alluvial Fan floodplains

2. Provo River LAMP Phase 2

- Continuation of the currently ongoing Phase 1 LAMP study
- Multiple Local Levee Partnership Team (LLPT) meetings
- Identification of levee segments and study approach for each segment

3. Utah County - Countywide Due Process and Post-preliminary Processing

- Completing the regulatory update of the revised preliminary issuance
- Countywide Study – 26 communities – 81 panels

4. Lower Weber Watershed Phase 3

- Completing the regulatory update through effective issuance
- Incorporate the NRCS Emergency Watershed Protection (EWP) project along the Weber River (data to be supplied by Weber County)
- Address non-model backed Zone As in Weber County through First Order Approximation

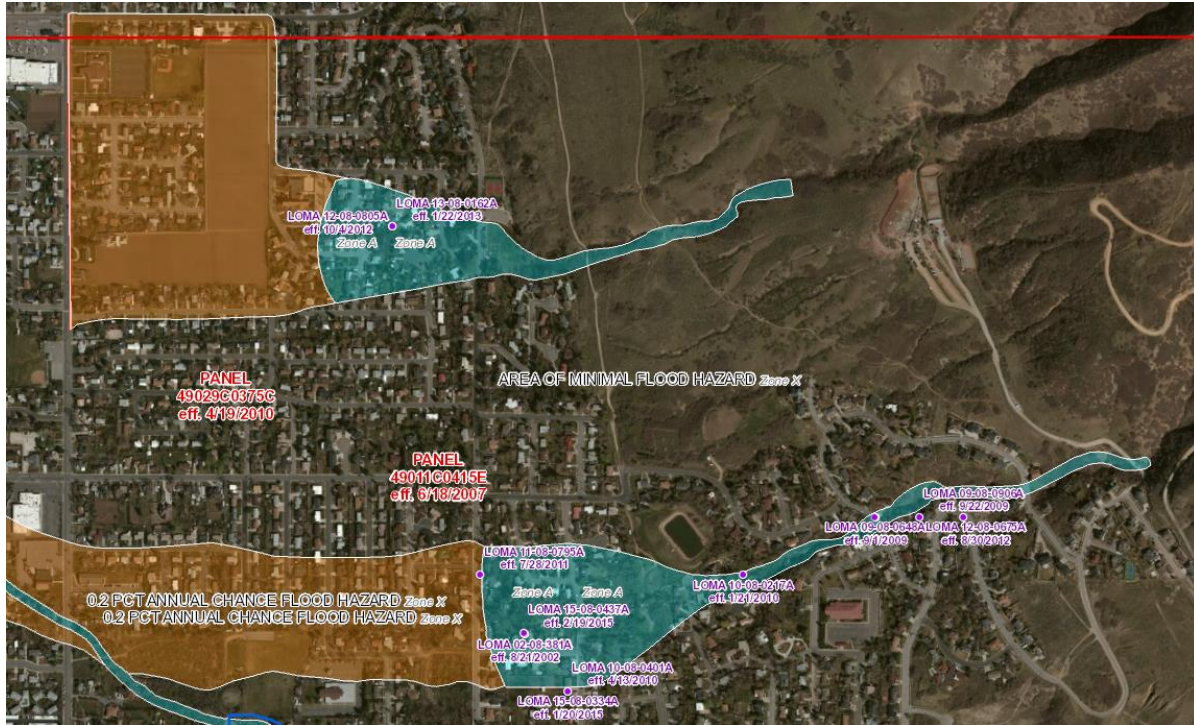
New LAMP Study

5. Jordan Surplus Canal LAMP Phase 1

- Densely populated urban area (Salt Lake City)
- Undetermined risk; inadequate floodplain delineations
- Unknown probability of levee failure during high flow events
- Substantial interest and leverage from Salt Lake County Flood Control (studies, data)

6. Wasatch Front Alluvial Fan Inventory

- Investigate all Zone A delineations along the Wasatch Front topographic break and prioritize for future study
- There are many effective Zone A delineations along the Wasatch Front, many of which are potentially on alluvial fan landforms. The effective delineations may not adequately represent the true flood risk to residents and businesses. Below is an example in Bountiful, Utah where this could likely be the case



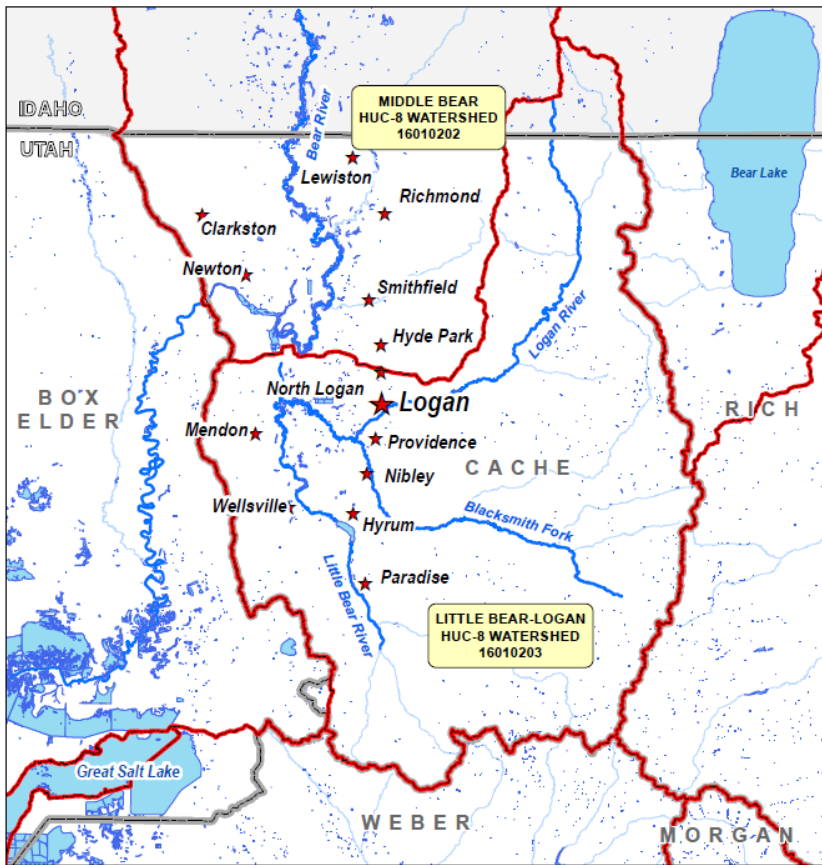
Proposed Discovery Projects

Discovery Considerations

Utah has had only 2 Discoveries in the last 6 years with the last one occurring 3 years ago (Jordan Watershed). In order to provide FEMA, the State of Utah, and the Risk MAP Program overall the necessary flexibility to plan future studies and improve metrics, it is recommended to increase the number of Discoveries in FY15 and FY16 for the State of Utah; increase Risk MAP deployment across the State while doing so; and identify clear NVUE/CNMS improvement and Mitigation Action opportunities.

7. Little Bear/Middle Bear HUC-8 Watersheds Discovery (combined)

- Watersheds cover Cache County, UT
- Communities presented needs/concerns to Utah DEM
- Many non-model backed and/or inaccurate floodplains (e.g., alongside regulated canals)
- Substantial development pressure
- Large flood event in 2011
- First time countywide did not include any new engineering studies
- Leverage from Cache County and Logan City (topo, studies)
- Substantial NVUE improvement with future studies

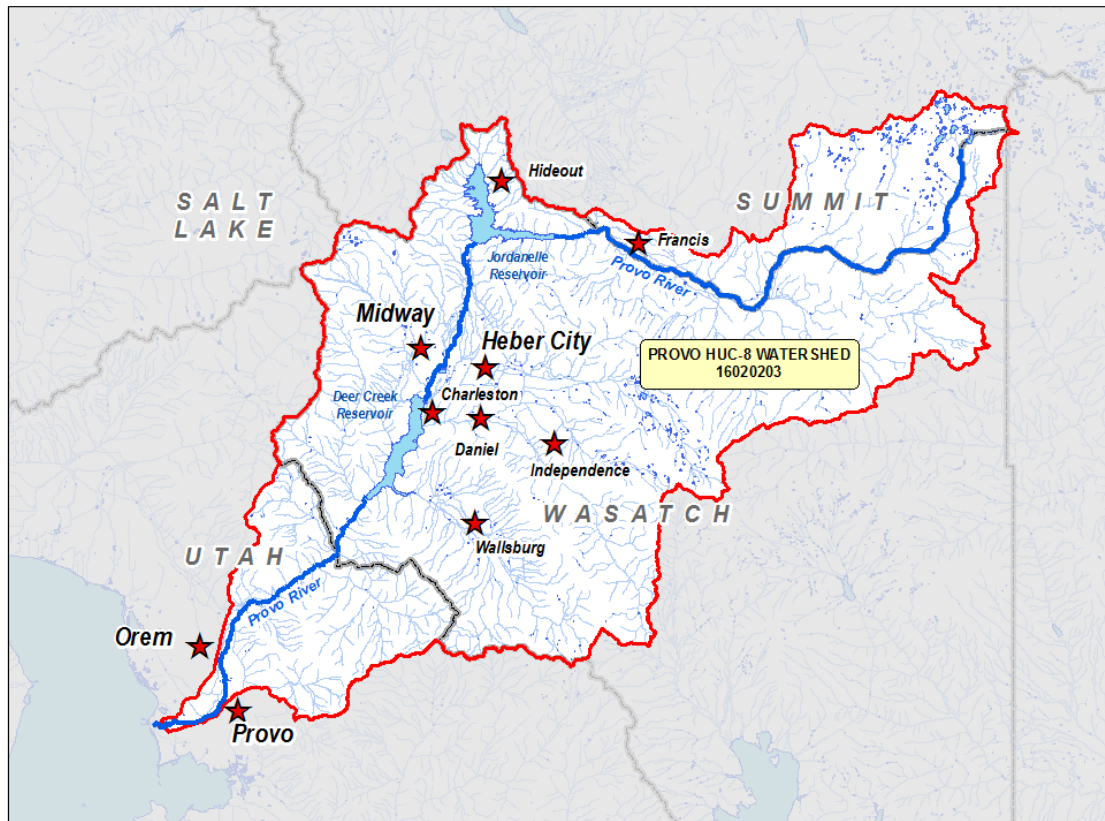


Little Bear / Middle Bear Watersheds – Cache County, UT

FY16

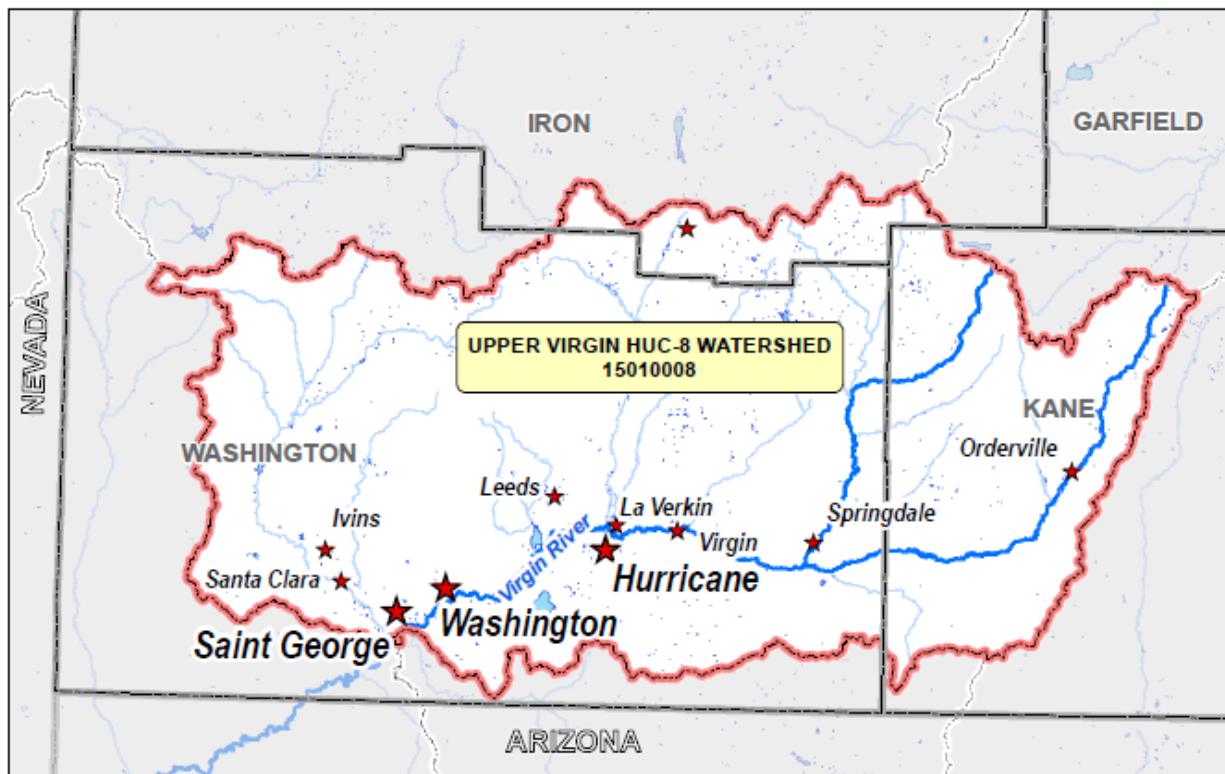
8. Provo HUC-8 Watershed Discovery

- Watershed covers Provo River from headwaters to Utah Lake
- Covers parts of Wasatch, Utah, and Summit County, UT
- Currently ongoing LAMP study falls within the watershed
- No continuity of hydrology along Provo River – aged studies
- Substantial development pressure in Wasatch County
- Substantial NVUE improvement with future studies



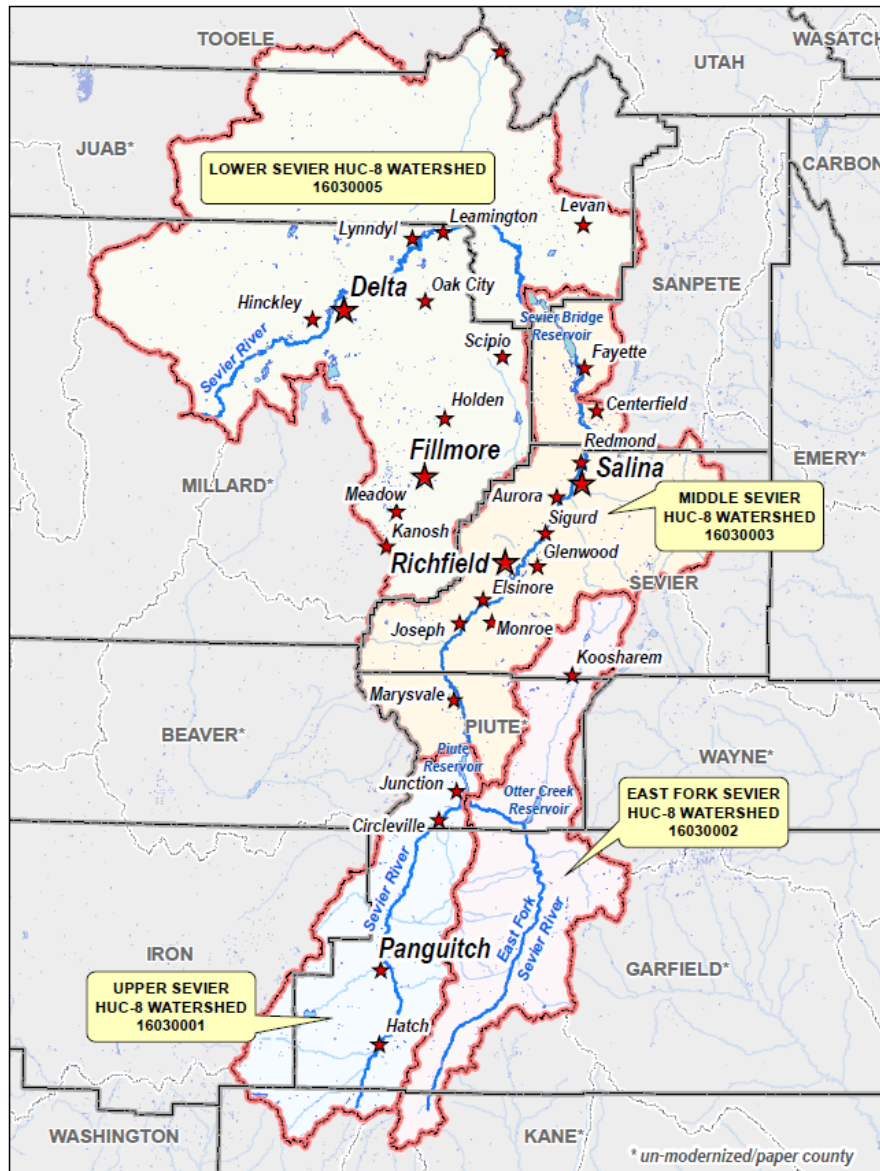
9. Upper Virgin HUC-8 Watershed Discovery

- Covers parts of Washington, Kane, and Iron County, UT
- Substantial development pressure along Virgin and Santa Clara Rivers
- High Erosion Hazard potential – 2005 and 2010 flooding events
- Community leverage (data, (partial) topography)
- Washington and Kane County interest
- Kane County is un-modernized
- Substantial NVUE improvement with future studies



10. Greater Sevier Watershed Discovery (Four HUC-8 watersheds)

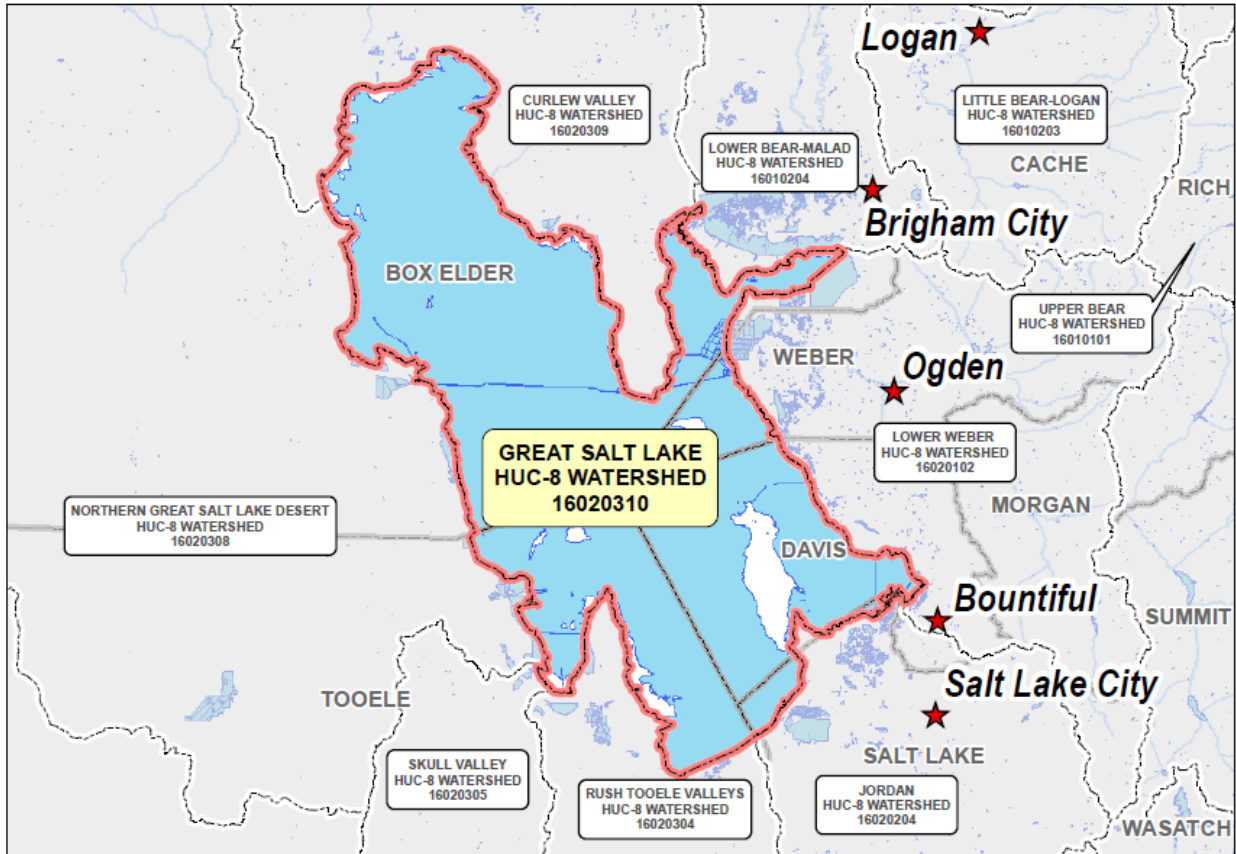
- Proposed Discovery includes four HUC-8 watersheds covering the Sevier River and East Fork Sevier River from headwaters to west desert terminal lake (Sevier Lake)
- Considerable efficiencies to be gained in the Discovery Process by combining these watersheds also allowing for analyzing hydrologic continuity along the Sevier River as it flows downstream
- Dynamic river system – history of active meandering and channel migration
- Levees are present along segments of the Sevier River – level of protection currently unknown
- Watersheds intersect 5 un-modernized counties. These currently have very limited paper FIS and FIRM coverage with accurate flood risk largely unmapped and unknown
- Substantial NVUE improvement with future studies



11. Great Salt Lake HUC-8 Flood Study

- Great Salt Lake HUC-8 Watershed only covers the actual lake itself. The Great Salt Lake is a terminal lake with no outflow
- Flood risk affects surrounding watersheds as opposed to the actual Lake HUC-8 watershed
- Intersects five counties and borders seven HUC-8 watersheds
- Currently effective floodplains, based on a 1996 U.S. Army Corps of Engineers Study, are inconsistent, incorporating both V and A zones depending on the county involved
- There are levees in areas along the lakeshore which were not addressed in the effective study
- The effective SFHA information for the lake is not agreed upon universally by communities around the lake and many have indicated the need for a comprehensive flood hazard study
- Due to the limited information available in the USACE study (and County FIS documents) as to the actual methodology for the floodplain mapping of the Great Salt Lake, there is no documentation on the tie-ins with the floodplains from the numerous contributing streams. This has led to considerable issues with LOMCs; local floodplain management; and actual risk mitigation.

While a Discovery has not been completed for the Great Salt Lake HUC-8, the Utah Risk Map/CTP is slated to hold several meetings on the Great Salt Lake flooding as part of the outreach efforts for the ongoing Jordan Watershed Study to determine how the Great Salt Lake flooding would affect the Jordan Watershed. With FEMA's concurrence and presence at the meeting(s), these efforts could be documented as a Discovery on the GSL HUC-8 watershed.



12. Landslide Hazard Mapping

Phased Projects (2016 -2017)

13. Provo Watershed Phase 2

14. Little Bear / Middle Bear Watershed Phase 2

15. Provo River LAMP Phase 3

16. Jordan Surplus Canal LAMP Phase 2

17. Greater Sevier Watershed Phase 2

18. Upper Virgin Watershed Phase 2

LiDAR Needs (2015 -2017)

- **Little Bear & Middle Bear Watersheds / Cache County**
 - Partnering opportunities likely
- **Provo Watershed / Wasatch County**
 - Partnering opportunities to be investigated
 - Partial LiDAR coverage available
- **Greater Sevier Watershed**
 - Partnering opportunities to be investigated
- **Upper Virgin Watershed / Washington County**
 - Having recently acquired LiDAR is especially critical due to the high erosion hazard potential
 - Partnering opportunities to be investigated
 - Partial LiDAR coverage
- **Shoreline of Great Salt Lake**
 - Substantial partnering opportunities anticipated.
 - LiDAR available for eastern shoreline

IX. Yearly Program Expenses

With another significant budget cut for FY15 funding, the Utah Division of Emergency Management has acknowledged and taken every deduction possible while still trying to maintain Utah’s Risk MAP/CTP Program. The budget submitted is as follows:

Utah Risk MAP/CTP FY15 Budget Summary			
Personnel	Risk MAP Administrator		\$63,260
Travel			
	In-State	9 days of travel, 4 of them to UFSMA Conf. in Bryce Canyon, Utah	\$1,465
	Out-of-State	Two trips out of state: Denver - FEMA Regional Meetings, CTP, Risk MAP trainings, workshops, etc.	\$2,678
	Out-of-State	Travel to Floodplain Conferences or ASFPM for Risk MAP/CTP Coordinator	\$3,395
	Total Travel		\$7,538
Supplies, Communications Other Expenses			\$9,202
Total Expenses Requested			\$80,000