



MEMORANDUM

TO: Carolyn Fritz and Chris Sturm (CWCB)
FROM: Amy Volckens (Riverside)
DATE: November 30, 2009
SUBJECT: Non-Spatial Data Needs in the Flood DSS

This memorandum is provided under Task 7: Access to Non-Spatial Data. This task does not address Laserfiche documents, which are covered separately under Task 8.

Access to non-spatial data in the Flood DSS will be provided using links to external websites on an “Additional Resources” page. A number of useful links were identified during the user needs assessment (Riverside 2009). This memorandum presents an update of the external links that will be included in the Flood DSS. The number of external links was reduced so that the Flood DSS can focus on the most important websites and avoid user overload.

Attachment 1 contains a list of the external websites that Riverside recommends for inclusion in the Flood DSS. Riverside selected these sites based on relevance to the Flood DSS and knowledge about the data layers that are likely to be included in the Flood DSS. Riverside requests that CWCB review this list to identify any links that should not be included in the Flood DSS.

Attachment 2 contains a list of the external websites that Riverside recommends should not be included in the Flood DSS. Riverside eliminated these websites for a number of reasons that are specified in Attachment 2. Riverside requests that CWCB review this list to identify any links that should be included in the Flood DSS.

Riverside anticipates that each website created for the Flood DSS will have an “Additional Resources” page with external links. The current system schematic includes multiple websites:

- The preliminary DFIRMs will be hosted as a separate website. This site will include the “floodplain boundary” links identified in Attachment 1.
- The power user site will include the floodplain boundaries, historical flood information, real-time data and alerts, hazard, and county data. This website will include all external links identified in Attachment 1 organized by grouping
- The weather modification data will be hosted as a separate lightweight application with the external links identified as “weather modification” in Attachment 1.
- The watershed restoration data will be hosted as a separate lightweight application with the external links identified as “watershed restoration” in Attachment 1.
- The NFIP community information will be hosted as a separate lightweight application with the “education and outreach” and “hazard mitigation” links in Attachment 1.

REFERENCES

Riverside Technology, inc. (Riverside). 2009. *Flood DSS Memorandum: Results from the User Needs Assessment*. September 2009.



Attachment 1. External Links to be Included in the Flood DSS

Grouping	Display Name	Website Link
Floodplain Boundaries	FEMA Map Service Center	http://msc.fema.gov/webapp/wcs/stores/servlet/StoreCatalogDisplay?storeId=10001&catalogId=10001&langId=-1&userType=G
	FEMA Mapping Information Platform	https://hazards.fema.gov/femaportal/wps/portal
	CWCB Map Modernization	Not available
	Urban Drainage Floodplain Boundaries	http://www.udfcd.org/floodplain_mapping.htm
	City of Boulder Floodplain Map	http://gisweb.ci.boulder.co.us/website/pds/pds_floodbase/viewer.htm
	City of Fort Collins Floodplain Map	http://gis.fcgov.com/fcmaps/fcmap.aspx?map=Floodplains
	South Boulder Creek Flood Study	http://gisweb.ci.boulder.co.us/website/pds/sbc_flood/viewer.htm
Historical Floods	National Weather Service Noteworthy Floods	http://www.crh.noaa.gov/bou/awebphp/floods.php
	Urban Drainage Historical Floods	http://udfcd.org/FWP/floodhistory/ColoradoFloodHistoryNotes.xls
	Colorado Climate Center Publications	http://ccc.atmos.colostate.edu/centerpublications.php
Alerts and Outlook	National Weather Service Alerts	http://www.weather.gov/alerts-beta/co.php?x=1
	Colorado Flood Threat Outlook	http://www.hdrweather.com/operational/cwcb/FTO.pdf
	National Weather Service Flood Conditions	http://www.weather.gov/ahps/
	National Weather Service Climate Prediction Center	http://www.cpc.noaa.gov/
	Colorado Avalanche Outlook	http://avalanche.state.co.us/index.php



Grouping	Display Name	Website Link
Current Conditions	National Weather Service National Doppler Radar	http://weather.noaa.gov/radar/mosaic/DS.p19r0/ar.us.conus.shtml
	National Weather Service Denver/Boulder Radar	http://radar.weather.gov/radar.php?rid=FTG
	National Weather Service Pueblo Radar	http://radar.weather.gov/radar.php?product=NOR&rid=pux&loop=yes
	National Weather Service Grand Junction Radar	http://radar.weather.gov/ridge/radar.php?rid=gjx
	National Weather Service Cheyenne Radar	http://radar.weather.gov/radar.php?rid=cys
	National Weather Service Local Forecasts	http://www.weather.gov/
	USGS Current Streamflow Conditions	http://waterwatch.usgs.gov/?m=real&r=co&w=map
	National Severe Storms Laboratory National Mosaic and Multi-Sensor Products	http://nmq.ou.edu/
	Urban Drainage ALERT System	http://alert.udfcd.org/rt_maps.html
	City of Fort Collins Rainfall Report	http://www.fcgov.com/flood-warning/
Emergency Management	Colorado Department of Emergency Management	http://www.dola.state.co.us/dem/
	Colorado Emergency Managers & Sheriffs	http://www.dola.state.co.us/dem/localem.htm
	Colorado All-Hazard Regional Field Managers	http://www.dola.state.co.us/dem/fieldservices/regions.htm
Hazard Mitigation	Colorado Natural Hazards Mitigation Plan	http://www.dola.state.co.us/dem/mitigation/plan_2007/2008_plan.htm
	Colorado Wildfire Mitigation Plan	http://www.dola.state.co.us/dem/mitigation/2001mitigationreport.pdf



Grouping	Display Name	Website Link
	Local Pre-Disaster Mitigation Plans	http://www.dola.state.co.us/dem/mitigation/localpdm_plans.htm
Education and Outreach	Flood Safety Information	www.floodsafety.com
	Boulder Flood Awareness	www.boulderfloods.org
Watershed Restoration	USGS Reconfigured Channel Monitoring and Assessment Program	http://co.water.usgs.gov/projects/rcmap/
Weather Modification	NRCS Snow Summary	http://www.co.nrcs.usda.gov/snow/snow/watershed/current/daily/maps_graphs/index.html
	NOHRSC National Snow Analyses	http://www.nohrsc.noaa.gov/nsa/

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Attachment 2. External Links that will not be Included in the Flood DSS

Grouping	Description	Comments
Floodplain Boundaries	List of local floodplain administrators	Riverside can add to the Flood DSS if CWCB provides a contact list.
	Community internet mapping applications	Riverside opted to point specifically to floodplain maps and real-time precipitation and flow data rather than general internet mapping applications because this is the information most relevant to the Flood DSS.
	Hydrologic and hydraulic models	Riverside can add to the Flood DSS if CWCB puts available models on an ftp site.
	Accuweather Radar Center	Riverside included links to the National Weather Service local and national mosaic radar images. Riverside did not include these links in an attempt to reduce the number of radar-related links. However, additional sites can be added if CWCB feels they are important.
	Local radar	
	Intellicast radar	
	Weather Underground	Riverside included only the NWS local forecast to reduce the number of weather-related links. Additional sites can be added if CWCB feels they are important.
	Weather Channel	
	NWS Pueblo WFO	
	College of DuPage weather	
	NCAR/RAP	
	FSL MADIS Surface Data	
	Mesowest	
	CoCoRAHS	
	Fire Weather by UDFCD	Not included because not of primary importance for the Flood DSS.



Grouping	Description	Comments
	CBRFC SNOTEL Plots	
	EMWIN (Emergency Managers Weather Information Network) Denver	
	CSU RAMS model	
	Unisys Satellite Imagery	
	USACE Albuquerque District	
	USACE Missouri River Basin	
	CRWCD Data	Not included because the sites duplicate information or data will be available in the Flood DSS.
	DWR Flow Data	
	NCWCD Flows	
Hazard Mitigation	Boulder draft multi-hazard mitigation plan	Not included as a separate link because the CDEM website includes a link to this document.
	FEMA HAZUS Level 1 Analysis Report	Not included because HAZUS data will not be included in the Flood DSS.
	Spatial Hazard Events and Losses Database	Not included because limited data are available for Colorado. It is possible that some of the information will be used in the statewide historical flood layer development depending on the events selected for the template.
Community	Community Stormwater Programs	Not included because not of primary importance to the Flood DSS.
	Regional Entities	Riverside opted to include specific links to regional entities where flood-related information was available, rather than general links to the entities' main websites.