

# Floodplain Newsletter

PHOTO: Valdez Glacier Stream



2015 Edition

September 25, 2015

## Low River Stream Gauge

In 2014 the City of Valdez entered a Joint Funding Agreement with the United States Geological Survey (USGS) to operate a stream-gauging station on the Lowe River in Keystone Canyon.

Streamgages provide streamflow information for a wide variety of uses including flood prediction, water management and allocation, engineering design, research, and recreational safety and enjoyment. This immediate and relevant data is electronically recorded, transmitted, and displayed in real-time on the web (<http://waterdata.usgs.gov/nwis>).

Basic streamgaging involves (1) obtaining a continuous record of stage—the height of the water surface at a location along a stream or river, (2) obtaining periodic measurements of discharge (the quantity of water passing a location along the

stream), (3) defining the natural but often changing relationship between the stage and discharge, and (4) using the stage-discharge relationship developed in step 3 to convert the continuously measured stage into realtime discharge data.

The Lowe River Stream Gage is located directly across from Horsetail Falls in Keystone Canyon. Stage and computed discharge data from this location is available in real-time on the web.

Check out USGS factsheet 2005-3131, titled “U.S. Geological Survey Streamgaging” for more information.

-Barton Dengel  
USGS, Alaska Science Center

There are three ways to access streamgauge data from the Lowe River.

- 1) Search for USGS Gauge #15226620 at <http://waterdata.usgs.gov/nwis>
- 2) Visit COV Floodplain Management homepage at <http://www.ci.valdez.ak.us/index.aspx?nid=411> and click on the quicklink to the right.



- 3) Get FREE stream-flow alerts via text message or email at: <http://water.usgs.gov/wateralert/>

Select Site Location by entering site number #15226620

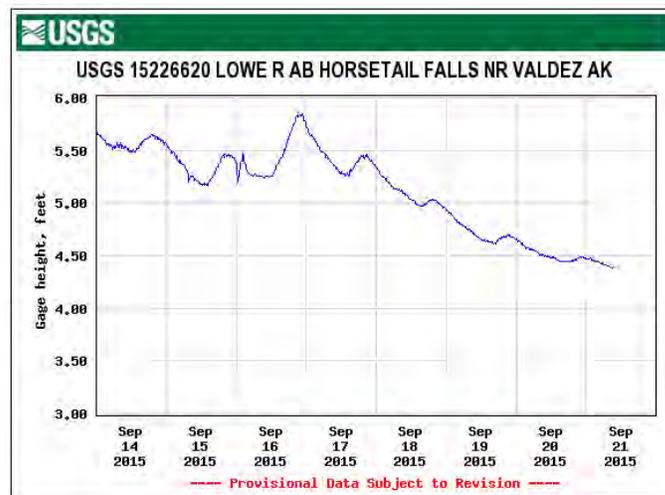
Click on the map pin-point to Subscribe to Water Alert

Complete Subscription form, and enter a threshold condition. A good starting point is greater than 8ft.

REPLY to the one-time confirmation email for either alerts and you will receive notifications based on the threshold condition you selected!

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## FEMA in the process of updating FIRM Flood Maps for Valdez

Over the last several years FEMA has been working with the City to gather data on floodplains in an extensive effort to update the FEMA issued Flood Insurance Rate Maps (FIRM). The regulatory FIRM identifies the Community's flood zones, base flood elevations, and floodplain boundaries.

This map is used to determine where the purchase of flood insurance is required for properties with federally-backed mortgages and is used by Staff to determine areas of development requiring floodplain development permits.

The regulatory maps that the City uses to determine Special Flood Hazard Areas were done in 1983 with limited quality data. In 2014 the City entered a Valdez Study Partnership Agreement with FEMA by Council approval.

As encouraged by this agreement, staff has been sharing study concerns with project staff and providing any information that would affect the modeling of the 1% annual chance event.

FEMA released the draft riverine maps to staff in late April. At that time, FEMA projected that in June they would host the Riverine Flood Study Review Meeting. In preparation for the meeting, staff performed a preliminary analysis to identify subdivisions with the greatest potential to be impacted by the new draft maps,

which include Alpine Woods and Robe River.

With the help of two hydrologists, staff then reviewed the methodology used by FEMA to produce the work maps. The input data, methodology and draft results were presented by FEMA to Staff at the Flood Study Review Meeting on August 12<sup>th</sup> via a web-conference.

The purpose of the Flood Study Review Meeting was to provide local staff the opportunity to view and comment on drafts of the engineering analyses produced by FEMA. On September 10<sup>th</sup> staff responded to FEMA with concerns in regard to the new mapping.

Once FEMA has reviewed the City's comments they will prepare for and schedule a public meeting to take community input on the proposed changes.

Staff concluded that changes of designated floodplain in residential zones impacting community members triggered the need to evaluate the City's CRS (Community Rating System) program.

The CRS is a voluntary incentive program that recognizes management activities that exceed the minimum NFIP (National Flood Insurance Program) requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from community actions meeting CRS goals.

In addition to preparing a re-

port to City Council evaluating the cities standing in CRS, City floodplain manager AnnMarie Lain attended FEMA CRS training at the National Emergency Training Center the first week in September. Citizens located on parcels subject to change from the new draft maps will be notified by a letter prior to the public meeting.

### STAY TUNED...

- 1) Review the proposed maps at: <https://www.commerce.alaska.gov/web/dcra/PlanningLandManagement/RiskMAP/CityofValdezRiskMAPStudy.aspx>
- 2) Watch for a letter in the coming months about the public meeting.
- 3) Contact the City's certified floodplain manager with any questions.

AnnMarie Lain CFM

907.834.3450

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SR GIS| Planning Tech.

Community & Economic

Development

City of Valdez

DID YOU KNOW?

## FLOOD INSURANCE

The NFIP imposes a **30-day waiting period** following the purchase of flood insurance. This ensures that a policy is purchased and maintained throughout the year. Residents cannot purchase it in the wake of an impending flood or because they have heard very heavy rains are on their way. It has to be in place 30 days before a flooding event begins.

## FLOODPLAIN DEVELOPMENT PERMITS ARE REQUIRED!

### Questions to ask yourself before developing:

- **Am I in the SFHA?** (contact Com Dev 834-3450 to check)
- **Am I building, mining, dredging, filling, grading paving or excavating anything?**
- **Am I storing equipment or large materials that could become dangerous or contribute to flooding issues in a flooding event?**



**“Remember  
T.A.D.D—Turn  
Around Don’t  
Drown. Currents  
can be deceptive.”**

## Rivers are Not the Only Flooding Culprits

Know where to go! City of Valdez evacuation centers are as follows:

- **Downtown Valdez and surrounding areas – High School & Civic Center**
- **Airport Area – Airport Terminal & National Guard Armory**
- **Robe River Subdivision Area – Fire Station #3**
- **Alpine Woods Area – Fires Station #4**

## City of Valdez Responds to Shifting Rivers

In early May the Lowe River infiltrated into existing surface water bodies within the 10 Mile area residential subdivision causing significant scouring against existing revetments. The concern over the integrity of the revetments combined with the threat of ground water elevation impacting utility infrastructure propelled the City into action.

To pro-actively prevent any damage, the City pursued expedited agency permits to allow for the emergency work to be done in the Lowe River. Groin 2 was extended in two locations with large rip-rap and fill.

In July, warm weather at higher elevations increased run-off into the Valdez area river systems once again. High creek flow and shifting channels caused significant floodplain erosion in both the Valdez Glacier Stream and the Lowe River. These rivers are characteristically dynamic throughout the floodplain, with multiple braided channels that naturally migrate.

The revetments near mile ten were once again reinforced along the Lowe River and the road embankment at Copper Avenue was armored to stabilize the stream bank. Dur-

ing the week of July 6<sup>th</sup>, City staff observed and measured a loss of real estate from one foot an hour to thirty feet the next hour.

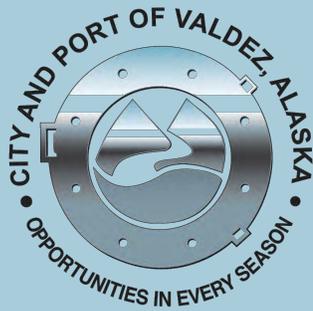
The unpredictability of the Valdez Glacier Stream with huge debris flows from hundreds of downed trees and brush clogging the river out-

flow kept staff on constant watch from July thru August.

Luckily, the City was able to protect Copper Avenue and adjacent utilities from damage. Take a look below at the before and after imagery along Copper Avenue.

-AnnMarie Lain, CFM





## CITY OF VALDEZ

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- **Federal Emergency Management Agency (FEMA)**  
[www.fema.gov/](http://www.fema.gov/)
- **Flood Insurance**  
[www.fema.gov/nfip/](http://www.fema.gov/nfip/)
- **Map Service Center**  
[Www.msc.fema.gov/](http://Www.msc.fema.gov/)
- **National Flood Insurance Program—Flood SMART**  
[www.floodsmart.gov/loodsmart/](http://www.floodsmart.gov/loodsmart/)
- **U.S. Army Corps of Engineers**  
[www.nwp.usace.army.mil/](http://www.nwp.usace.army.mil/)
- **State of AK, Floodplain Management**  
[www.flood.alaska.gov](http://www.flood.alaska.gov)

Websites

## City of Valdez 2015 Floodplain Newsletter

### MAIL TO:

US POSTAGE  
PAID  
VALDEZ, AK  
PERMIT NO. 11  
VALDEZ, AK 99686

### Let Us Help YOU!

**City of Valdez**  
[www.ci.valdez.ak.us](http://www.ci.valdez.ak.us)

- Internet Floodplain Information:  
<http://www.ci.valdez.ak.us/index.aspx?nid=411>

**Valdez Consortium Library**  
(Houses floodplain publications and info)  
Phone: (907) 835-4632  
Web: [www.ci.valdez.ak.us/lib/](http://www.ci.valdez.ak.us/lib/)

### The City of Valdez provides FREE

- Technical Advice for reducing the flood hazard to personal or commercial property
- Development reviews for activities in the Floodplain
- Information on how to retrofit drainage and other residential issues
- FIRM maps and floodplain determinations
- Handouts and brochures on disaster preparedness, flood-proofing, retrofitting, and much more!

City personnel have been trained by **FEMA** on flood-proofing techniques and are available to provide site-specific data concerning floor elevations and historical flood levels.

For these and more services, please contact the City's Community & Economic Development Department (834-3401) and ask for the following personnel:

Rusty Hansen,  
Building Inspector,  
[rhansen@ci.valdez.ak.us](mailto:rhansen@ci.valdez.ak.us),

and

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