



How has the Ship Creek Restoration Project of 2005 Affected Sports Fishing in the Lower Reach of Ship Creek? Anchorage, Alaska

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Municipality Of Anchorage, AK
 Hydrologic Unit Code 19020401
 Latitude 61°13'32"
 Longitude 149°38'06" NAD27
 Drainage area 89.5 sq. miles
 Gage datum
 490 feet above sea level
 NGVD29

Introduction

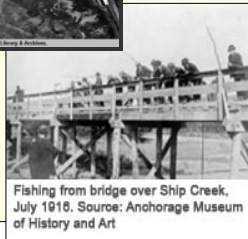
The Ship Creek fishery, in the heart of downtown Anchorage and is extremely popular - with over 40,000 angler days (or 10,000 people) recorded in 2004. In 2005, a 3 million dollar restoration project was completed. The purpose was to provide safe public access to this heavily used creek, while rejuvenating and rehabilitating critical stream banks.

35 year old culverts were replaced, stream banks were fortified with pilings and riprap, and a two lane asphalt bridge was built, increasing both public access and stream flow.



Bridge
8/5/1950

Train Cars



Fishing from bridge over Ship Creek, July 1918. Source: Anchorage Museum of History and Art

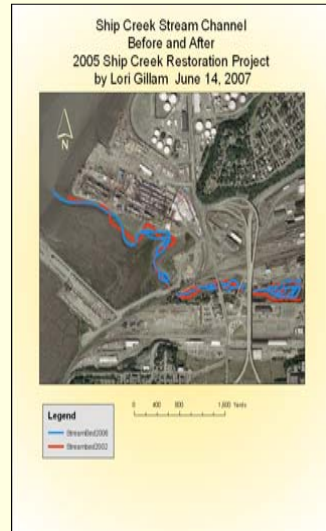
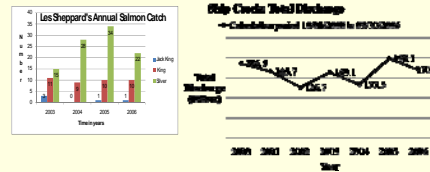


Old Bridge over Ship Creek. Source: USFWS

Materials and Methods

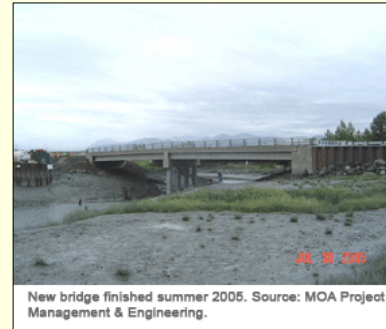
Aerial, geo-referenced images showing Ship Creek in the years 2002 and 2006 were collected. New shape files were created and digitized to show the locations of the stream bed in each image. Personal fishing data was collected and analyzed by specie and number caught. Stream discharge data was collected. Maps and graphs were constructed and analyzed.

Data Analysis



Results

The most obvious change in Ship Creek, as a result of the restoration project, was to the river channel. This was due, in part to the removal of the 35+ year old culverts and the construction of a new bridge at the site. As seen in the Total Discharge graph, there was fluctuation, and remained comparable to pre-restoration levels. Salmon runs remained intact, and is supported by the fishing data supplied by Les Sheppard. Whereas the number of king salmon caught remained relatively consistent, the number of silver salmon caught continued to increase dramatically (~1.5-2x). While it would have been useful to compare total pole hours Mr. Sheppard fished, the data to make this calculation was not available.



Did you know?

Length: 182 miles
 (includes forks and major tributaries)
 Watershed: 123 square miles
 Dams: 4
 Annual fish catch:
 3,700 chinook
 10,500 coho
 Hatchery supported fishery (ADF&G)

Conclusions

When word of the Ship Creek Restoration Project leaked to the users of this urban fishery, there was immediate concern. This was a fishing hole with easy access and historically, fish worth catching. There was no doubt that the Alaska Railroad train yard needed cleaning, decomposing culverts and roads needed repair and banks were eroding. However, what would be the expense to the users? From one person's fishing data, it would appear the restoration project had no real impact on this resource. Certainly, one may have had to fish a little harder in 2005, as the stream channel and mouth had been altered. The restoration project just may have moved a sleepy urban fishing hole toward sustainability, as its users became better stewards of this unique resource.

Sources cited

- Municipality of Anchorage – Salmon in the City
<http://www.muni.org/ssalmoninthecity/projects.cfm>
- USGS water quality data reports
<http://www.waterdata.usgs.gov>
- Les and Kathleen Sheppard: personal fishing record 2003-2006

Acknowledgments

I would like to thank Cathy Connor, Anupma Parakh, Kathy Smirkud and Gary Cooper for their guidance, patience and help with the technology, and my husband who always keeps me geo-referenced. I would also like to thank my Dad, Les Sheppard, whose love for fishing Ship Creek has kept my family in salmon for many, many years, and my Mom, Kathleen Sheppard for keeping a record of Dad's fishing exploits.

For further information

For more information please contact gillam_lori@asdki2.org. EDGE website is at www.us.alaska.edu/envs/edge

