ORAL HISTORY 2015-15 PT. 1

Bob Henszey

Series: Pioneer Park Railway Museum Rail Tales Lecture Series

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Fairbanks, Alaska

Martin Gutoski discusses testing the engine before the Memorial Day opening of the season. He introduces a three-minute film about Pioneer Park and Engine No. 1. He thanks Leslie McCartney from the Oral History Program for videotaping the program. He introduces Bob Henszey.

Bob Henszey talked about working with the Tanana Valley Watershed Association and the Interior Land Trust to educate local residents about our dynamic rivers and to show how Fairbanks has grown through time. He collects old aerial photographs and demonstrates how Fairbanks has developed. He will be looking at a handful of locations along what is technically the Chena Slough, but is now called the Chena River. He will show how the river has changed in the last 100 years.

Aerial photo image -Chena Slough 1938-2012. Henszey shows an aerial view of the Chena River as we know it right now. Through town it is called the Chena River and then goes off towards Chena Hot Springs. The Chena Slough is in North Pole up to the flood control project and upstream from the flood control project it is known as Piledriver Slough. A long time ago the Chena River was known as the Chena Slough through town. If you follow it up to its headwaters near the Salcha area many tributaries coalesce into what is now called Piledriver Slough or the Chena Slough. He compares the 1938 aerial photograph (the oldest aerial photograph of the area he is aware of) to the 2012 aerial photograph side by side.

Bob Henszey said he will now start looking at the headwaters of the Chena Slough. He shows the 1913 map which is based on information from 1902-1910 surveys. The map has Chena Slough, Piledriver Roadhouse, the Tanana River, a few of the tributaries of the Chena Slough, the Valdez Trail and a telegraph line. There is a question from the audience about the ferry across the Chena Slough. Henszey said he has been asked about that before and doesn't know much about it. He said on one 1938 map no indications of structures was on the map. He welcomed information or comments from the audience. He said early on there wasn't enough water in the Chena Slough in Fairbanks to run riverboats very well so they got the idea to go to the headwaters and trying to open up some of the channels to run water down into Fairbanks. It didn't work very well and they soon realized it wasn't such a good idea because Fairbanks floods all the time.

Aerial photo image - Headwaters of Piledriver Slough 1938. The Tanana Rivers shows up well on the photograph because it has a heavy silt load and the silt reflects light so it looks bright white. The Chena Slough also has silt in it so essentially it is a secondary or side channel of the Tanana River. Henszey points out the Valdez Trail on the aerial photo and the site of the Piledriver Roadhouse and the ferry. He talked about the cable across the Tanana River at Rika's Roadhouse.

Topographic map titled Headwaters of Piledriver Slough 1949. Henszey said by 1949 they were calling it Piledriver Slough. The upper sections of the map are then overlaid with an aerial photograph. The slough is still bright white showing that it is still getting a lot of sediment from the Tanana River. A 1986 aerial photo is overlain the 1949 aerial photo and map. Henszey said by that time they realized the Piledriver Slough was putting too much water into the Fairbanks area so they began plugging up some of the tributaries. It is now not the bright white nor as big of channel as it used to be.

Aerial images - Headwaters of Piledriver Slough 1999 and 2007 show how things are currently. In 2011 he was looking at the site where the proposed railroad bridge was going to go across the Tanana River and one of the tributaries for Piledriver Slough had a head cut or nick point only about 30 feet away from the Tanana River. Piledriver Slough was only 30 feet away from being reconnected to the Tanana River in 2011.

Aerial image - Headwaters of Piledriver Slough 2012. In 2013 they were constructing the bridge across the Tanana River. It is the longest bridge in Alaska, 3,300 feet. In 2014 it was completed. In the process of building the bridge they wanted to make sure they protected the embankment so they built a levee. It blocked off nearly all the little tributaries going into Piledriver Slough or what used to be known as Chena Slough. There were some nick points before the levee was completed that were two or three feet from the Tanana River.

Aerial images -1938 to 2012. Question from the audience about navigating Piledriver Slough. Henszey said probably not. It is pretty shallow and there are a lot of beaver dams. A long time ago they hoped to get riverboats through it. Question from the audience about the location of Bates Rapids. Henszey said Bates Rapids according to the USGS GNIS it is located near Delta Junction. The whole idea of using the Chena Slough for navigation was supposed to avoid the Bates Rapids on the Tanana River. He would like to know the location of the rapids. A comment from the audience that can't be heard. Henszey said there are different ideas about the mouth of the Chena, too. He said things change and in some cases in a big way.

Map titled Chena Slough Before Flood Control Project 1913 (1903-10 surveys). Aerial photo titled Chena Slough Before Flood Control Project 1938. Henszey said the Chena Slough still has the heavy sediment load in it so it is bright white and points out the old Valdez Trail. Henszey said Fairbanks began to realize that the slough was periodically dumping lots of water into Fairbanks and causing flooding. Moose Creek Dike was constructed in 1940-45. He talked about the route of the Richardson Highway and railroad tracks across the dike. He shows an image of a newspaper article with information about early rock paintings on Moose Creek Bluff. He believes the rocks containing the paintings were crushed up and put into the dike.

Aerial photo - Chena Slough Moose Creek Dike 1949-50. Henszey said from a stream standpoint the biggest thing about the Moose Creek Dike is it could now be said that the Piledriver Slough is upstream from the dike and the Chena Slough is downstream from the dike. The dike bisected the Chena Slough and diverted the water that used to flow into the Chena Slough over to the Tanana River. It cut off flow

into the Chena Slough. The Chena Slough was then ground water fed. In the image it is easy to see that the Chena Slough was now darker, indicating much less sediment in the water.

Aerial photo - Chena Slough & River Moose Creek Dike 1949-50. Henszey said in 1967 there was a big flood in Fairbanks. The flood water actually came out of the Chena River. They decided to build the Moose Creek Dam which replaced the Moose Creek Dike.

Aerial photo - Chena Slough & River Moose Creek Dam, 2012. Henszey said the flood gates are left open year round except when the water gets too high in Fairbanks. Then they gradually close off the gates. The area behind the dam or dike is filled up. The intent is to take the water from the Chena River and divert the flow to the Tanana River. He has a photo from 2014 showing water behind the dam.

Aerial photo - Chena Slough Moose Creek Dike 1949-50, Chena Slough Moose Creek Dam 2002, Chena Slough Moose Creek Dam, 2007 and Chena Slough Moose Creek Dam 2012 illustrating how Fairbanks has grown. Question from the audience that can't be heard. Henszey said the Chena Slough has shrunk a whole lot. Another question from the audience that can't be heard. Henszey said he isn't familiar with Steamboat Landing. Martin Gutoski speaks in the background. Henszey said when the pool (behind the dam) fills up with water the ground under the dam is fairly porous. A lot of water comes up in front of the dam and it floods a lot of the basements in this area. The Corps of Engineers is reluctant to fill up the pool behind the dam unless it has to. Comment from the audience that can't be heard. Henszey said the Little Chena River is a little bit downstream which will be shown in the next sequence. A comment from the audience. Henszey said it did and said it would be in the next sequence.

Aerial photo - Chena Slough 1938 to 2012. Henszey said he will be talking about where the Chena River comes into the Chena Slough. He shows the 1913 map again showing the confluence of the Chena River and the Chena Slough. Aerial photo image of Chena Slough 1938. The Chena Slough has a lot of sediment in it from the Tanana River. Following the Chena River upstream where the Little Chena comes in there is evidence of placer mining in the Little Chena because there is sediment dumping into the Chena River. Further up the Chena River the river is dark again. He points out Badger Road along the Chena Slough. Comment from the audience.

Aerial photo - Chena River & Chena Slough 1949. Persinger and Peede Roads are easy to see on the image. This image was made after the Moose Creek Dike was constructed which meant they began diverting water from the Chena Slough upstream (Piledriver Slough) to the Tanana River. It is evident there is more sediment in the Chena River from sediment coming from the Little Chena River than in the Chena Slough. Moose Creek Dike has cut off the headwaters for Chena Slough and it is now called the Chena River flowing through town. There are comments from the audience asking what a slough is. Henszey said sloughs tend to be slow moving water. Sloughs mean different things in different parts of the country. They are usually slow moving water and in this case it was a side channel of the Tanana River. Rivers tend to be faster moving water.

Aerial photo - Chena River & Chena Slough 1967. Henszey said 1967 was the year of the flood. There isn't any date associated with the image but he thinks it was taken before the flood which was in August 1967 [Henszey later learned the aerial photograph was taken June 14, 1967]. Question in the audience

about Nordale Road. Henszey said the Little Chena is just downstream from Nordale Road. He points out the gravel bars on the Chena River. The Chena Slough is beginning to get smaller.

Aerial photo - Chena River & Chena Slough 1978 after the Moose Creek Dam was put in. Henszey said this is color infrared image so the water in the rivers shows up well. Nordale Road is pointed out. The flood control project is upstream. The Trans-Alaska Pipeline is pointed out. Henszey said the Chena Slough is getting smaller and smaller. It is a channel that is intended to flow 10,000 cubic feet per second and now it flows only 100 cubic feet per second. It is a wide channel bed without the flow. Comment from the audience. Henszey said the dike first cut it off the headwaters, and then the dam definitely cut it off. The Chena Slough is essentially all ground water fed now. It is a nice grayling fishery. He said now there is an Elodea infestation in the slough. The water is slow moving so it is an ideal location for Elodea. He points out the beginning of Brown's Hill Quarry.

Aerial photo - Chena River & Chena Slough 1986. Henszey said you can see that homes were originally built closer to river channels and then through time people were building away from the channel. He quickly goes through several images from 2002 and 2007. He said this is before they started building the bridge across the Tanana River for the railroad (referring to the size of Browns Hill Quarry). The quarry was still a hill. He shows an image from 2012 and said that now most of the rock is gone from the quarry and now it is down on the levee at the Tanana River Bridge. Comment from the Martin Gutoski stating Browns Hill was the core of an old volcano. Henszey acknowledged it was a volcano (the quarry site). Comment from the audience about the pond at the bottom of the image below Peede Road. Henszey said that is a gravel pit and you'll see those in Fairbanks. They start small and get bigger and bigger through time. They are material sources for building all the roads and pads for construction. Comment from the audience about gold not being the biggest resource, but gravel is. Henszey said that wouldn't surprise him. He said they got a lot of gold from some of the nearby areas.

Henszey said now they will be looking at the downtown Fairbanks area. The 1913 map is displayed with the area around Fairbanks enlarged. Henszey points out the Tanana Valley Railroad on the map as it was known from the 1907 survey. This was at the time when the river going through town was known as the Chena Slough. Question from the audience about the term astronomic on the map. Henszey said that stands for the astronomic station. Martin Gutoski makes a comment. It was a U.S.G.S. station. A wireless station is also on the map. It replaced the wired telegraph. Henszey points out Deadman's Slough on the map.

Section of a topographic map with Fairbanks 1933 with information based on the 1907 survey and revised in 1931. By this time the Tanana Valley Railroad track was now called the Alaska Railroad. It was connected all the way to Seward. Comment from the audience about Denny's Slough. It was in the area of Bentley Island. Discussion about the slough.

Aerial photographic - Fairbanks 1938. Henszey commented on where Denny's Slough comes out at the present time in a culvert and floods Graehl Park. Henszey points out the Chena Slough and the point bars on the river on the inside of the bends where the water moves slower and gravel settled. On the outside of the bends the river moves faster. It is a wide river at that time. Noyes Slough was also larger

at this time. Riverboats were able to navigate up Noyes Slough to get around some of the traffic in town. Someone from the audience asked why there isn't more water flow in the Noyes Slough now. Henszey said one of the main reasons is bed of the Chena River has dropped down a little bit and the mouth of the Noyes Slough is filled in a little bit. It takes really high water to get the water into Noyes Slough. We don't have the flushing flows or channel forming flows anymore. The channel encroaches and gets narrower. Comment about Week's Field on the map. Henszey said the next image shows the airport. Comment from the audience about the circular image on the photograph. Discussion in the audience about the landing site for the dirigibles. Martin Gutoski said they were hoping to attract zeppelin traffic. Comment from the audience about riverboats on the Noyes Slough. Henszey shows an image looking upstream from the Cushman Street Bridge showing how wide the Chena Slough was.

Aerial photo from 1949 after the Moose Creek dike was put in. The Chena River is no longer carrying a sediment load. Noyes Slough also has clear water in it. Weeks Field is pointed out as well as the dirigible landing site.

Aerial photo from 1967, the year of the flood in Fairbanks. Henszey overlays an image of the extent of the 1967 flood showing how much of the area was flooded. The university is on the left side of the image and was out of the flooded zone. Comments from the audience about Farmer's Loop. Someone from the audience asked about a pond that used to be located at the base of the university. They look back through images to look for the pond.

Aerial photo from 1978 after Moose Creek Dam was put in. The Chena River is beginning to get narrower and narrower. Noyes Slough is getting narrower and a bend on the slough is cut off. Several different images from 1986-2012 showing the growth of Fairbanks. Comment from the audience about Isabella Creek.

Henszey said he will now look at where the Pump House is located. He shows a section of the 1913 topo map. He points out Cripple Creek and Chena Ridge. A newer revision of the topo map from 1931 no longer has the tracks of the Tanana Valley Railroad on it.

Aerial photo from 1938 of this same area. The water returning to the Chena Slough at the Pump House is shown. When they pumped water up over to Ester it has to come back. The capacity of Cripple Creek could not handle it so they built a drain that was constructed in 1935. At one time they had a return upstream from the Pump House and it clogged the pumps. On the image you can see the water returning from the placer mines was clearer than the water in the Chena Slough.

Aerial photo from 1949 after Moose Creek Dike was put in. The water in the Chena River is now clearer than the discharge from the Cripple Creek drain. The airport is shown on the image. They were thinking about putting the airport on the top of Chena Ridge at one time.

Aerial photo from 1967 taken before the flood. There was just a little bit of sediment coming out at the Pump House in 1967. An overlay of the extent of the flood in this area is shown.

Aerial photo from 1978 after the flood control project was completed. The Chena River is starting to get a little bit narrower. The flushing flows are no longer coming through.

Aerial photos from 1986-2002 are shown. In 1996 Chena Ridge Road was constructed and the GoogleEarth image shows the culvert that was put in before they constructed the road. The culvert is now beginning to fail and DOT will be replacing it. Comment from the audience and Henszey about the size of the culvert. Chena Spur Road has a bridge over the creek that is the correct size. When they put in Chena Ridge Road Cripple Creek was cut off, but the drain got a culvert. The original creek is now only fed by groundwater. Since DOT is contemplating replacing the culvert there is an interest in restoring Cripple Creek. It has potential for grayling habitat and possibly for salmon habitat. They hope to restore about two miles of the channel.

1913 topo map at the mouth of the Chena River. The town site of Chena is shown. Comment from the audience about a section of the river. Henszey said it is called Marconi's Slough and it is a natural feature. An image of one of the plats of the town site of Chena. The same topo map was updated in 1931 and shows the now abandoned town site of Chena.

Aerial photo from 1938. Remnants of the road work at town site of Chena can be seen on the image. There was an accurate survey of the river bank of the town site of Chena. Comment from the audience about a slough at the airport site. Henszey said it came in from the Tanana River. The 1949 aerial photo image shows bank erosion. This was after the Moose Creek Dike and the Chena River is starting to get a little bit smaller. Comment from the audience about the mouth of the Chena. An image of the 1967 aerial photo is shown.

[While recording tapes were changed, aerial photographs from 1978, 1986, 1999, 2002, 2007 and 2012 were shown, including showing up to 2,050 feet of bank erosion on the Tanana River upstream from the confluence with the Chena River, and a new channel forming on the Thana River.]