THE HISTORICAL ROLE OF THE ARMY CORPS OF ENGINEERS ON THE SKAGIT RIVER

Barbara Werelius, Records Manager, City of Bellevue, Washington

I imagine you're all surprised to see someone like myself representing the Corps of Engineers, but I guess this is a day of equal opportunity, so here I am. I'll tell you how I came to be connected with investigating the older records of the Corps of Engineers. I have a degree in history from the University of Washington, I've done graduate work in history at Western Washington State College, and I am a graduate of the Archival Training Program. For six months of my training, I was in Seattle at the Federal Archives and Records Center, a storage area for historical records for Federal agencies. I spent those six months going through approximately four hundred cubic feet of the old records from the Seattle District of the Army Corps of Engineers. Those six months I spent shuffling the papers and refiling the files and writing a description and arranging those records into some sort of order so that anyone who does want to do further research into it would be able to go into them with greater ease than when I found them. The resources are available now; they are in the records for anyone wanting to know about the relationship between the Army Corps of Engineers and the Skagit River.

The Skagit River records include correspondence from the early settlers, requesting removal of snags and the many dredging operations, and it's interesting to see the various factions that come out in this correspondence and I'll talk about that later. There are reports from the area officer up here, who was a master of a snag boat, to the district office which was in Portland and a few years later was moved to Seattle. There are snag boat reports for the work that they actually did on the river. There are administrative records, the general dayto-day type of 'housekeeping' up here. From field and survey notes, I gather that the Corps of Engineers was the first to survey the river. And there are some photographs, very few of the Skagit River, unfortunately, but those are all documented and listed.

Now, to get to the Corps itself. In 1896 there was a River and Harbor Act approved by Congress which gave impetus to the Corps' activities here. Correspondence includes a letter from the Acting Secretary of War, for the Corps at that time was connected with the War Department. And there is a report that the chief of engineers has written about, a survey of the Skagit River from its mouth to Sedro, Washington. A quote: "This river is now being improved by the United States by removing snags and etc. under appropriations for improving Puget Sound and its tributary waters, the chief obstruction to navigation being snags which accumulate with every freshet." Well, at that time a flood was a freshet. They had quite a few problems with the flooding.

There is also a map, the first map that people drew of the Skagit. The records that I found to be most interesting from this area were petitions from the settlers thenselves, asking various things. For example, the citizens near Tom Moore Slough wanted a dam to be con-

structed to afford drainage of the surrounding land. This is dated 1894 and the petition is from the settlers. The names are typed: some of them have been signed, so I imagine there will be people here who are known in early Skagit County history. And then the report from the area officer, gives his opinion as to whether this should be done or not. The only thing that they've really done in the area is to construct a restraining wall on the Tom Moore Slough in 1911. Other than that, I guess that it was difficult to get all the forces involved together to do anything. Then also the other activities, of course, were removing the snags. I came across another letter, dated 1900, in which the master of the snag boat is complaining against the fishermen for placing piling and brush in the north fork of the Skagit. This time, it's a hand written document signed by the masters. Then I have the report from the official up here representing the Corps. This one was especially interesting because several people signed it, I guess seemingly under odd circumstances, because I don't know if they knew what they were signing or not. I'll read this letter: "Dear Sirs, The reason that I signed what Mr. Baxter has just spoken about, Mr. Tucker brought that petition to me saying that Mr. Baxter had been making his eddies by driving piles and filling them with brush and rock. If you find that his statement is not true I will withdraw my signature." I thought that that was amusing. I have another petition and it's another hand-written example, this is dated, "City of Edison, 1896." It's from the residents and owners of land along the river asking that the court do something about the loggers who are blocking the stream. A representative from the Army Corps of Engineers has informed me that there was quite a bit of trouble with the log booms earlier. Log booms would block the river so that would create flooding and that's why the residents got a little bit 'up-tight' about the whole thing. He also told me about the steam boats and the fact that the draft at the mouth of the south fork is only two-and-a-half feet, so larger vessels couldn't get in. He also said that the passenger vessels were kind of a lost business after a while because there was no schedule. They had to depend on the tide to swish them across the sand-bar.

Let me tell you what is available to those desiring to look further into several facets of the history of Skagit County. Of course, there's a multitude of federal influences. The Corps of Engineers records really don't contain that much specifically about Skagit County. The Bureau of Land Management has records that have to do with Skagit County; in the Bureau of Indian Affairs papers, you could look up individual tribes; the Department of Agriculture has records, but they are not at the Archives. The National Forest Service has some of the records down there. If you wished to look into the various ethnic groups, you could look in the 1900 Census. The homesteading files are kept in Washington, D.C. There are some lists of homesteaders rather than information about them at the Seattle Records Center. And the Records Center (I'm going to give them a plug.) is onen from eight o'clock to four thirty, five days a week, they're right on Sandpoint Way, and they will be more than happy to help you if you do have a desire to go down there.

EARLY DIKING AND FLOOD CONTROL

Dr. Roland L. De Lorme Project Director and Chairman, History Department Western Washington State College

The early history of diking and reclamation efforts in the Skagit River Valley is, in fact, the subject that first drew my attention to the historical significance of the Skagit River. Diking efforts began very early. The first halting efforts for the development of diking and reclamation began in the late 1860's--the work of such pioneers as Michael Sullivan and Samuel Calhoun. In the 1870's, a small company was formed in the valley by E. H. Sisson, Rienzi Whitney, and A. G. Tillinghast to dike and reclaim the land, and thereby encourage agricultural development. The company was successful on a small scale for some five years in the 1870's and continued to work, diking sections of land in the valley. By the mid-1870's, observers noted that the tide lands of the Swinomish were beginning to yield, for that day, immense crops. And of course those who had diked and drained their land were the ones who were obtaining these large yields. In 1874 those early settlers, however, began to look beyond their individual, voluntary efforts or even small scale private companies' efforts to dike the river, and a public petition was forwarded to the United States Congress in 1874 asking for federal appropriations. An initial appropriation of \$25,000 was requested for the improvement of the Skagit River and the land along its banks. The reasons given for federal assistance are interesting. It was noted, first of all, that the river was filled with impediments to navigation, that already mining and logging attempts were being stymied up-river because of the log jams. The federal government, it was hoped, would provide needed money--perhaps even manpower and expertise--to clear out the river. It was argued that the river flooded and its periodic floodings worked immense damage to the low-lands. In order to encourage settlement up-river, to protect the already useful farmland in the lower valley region, therefore, local residents wanted the federal government to provide assistance. The federal government did not, in fact, come through with the assistance for the residents of the valley; those who lived in the valley continued to be at the mercy of the floods. The flood of 1880, for example, which was the first large flood when there was a large settlement in the valley, remained at a high stage for over a month. This brought many residents to the conclusion, again, that they must do more to encourage the interest and the financial assistance of the federal government. Many of the farmers suffered disastrously from the flood of 1880, and they were hit again two years later, in 1882, by a great summer flood which destroyed many farms and homes in the valley. The dikes were broken in several places. The whole countryside, extending from the delta northward, presented the appearance, according to one observer, of a vast lake. Over twenty-five hundred cultivated acres were inundated in that flood. It is difficult to assess the value in current terms, but those who lived in the valley then, in the 1880's, assessed the cost of the flood damage at \$100,000. It led to public protest meetings. Two results came from the public meetings. First, another attempt was made to interest Congress in helping farmers of the valley, and second, there was another

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attempt to encourage the voluntary cooperation of the residents themselves. A committee of investigation was formed, presided over by Thomas P. Hastie. They decided, in looking over the damage, that the needed repairs of the existing dikes and the other work that should be undertaken would cost approximately \$10,000. A footnote: in that time, very often the pioneers regarded surveyors as a luxury. The \$10,000 suggested by the committee could not have included a large amount of surveying. It rested upon the assumption that the residents of the valley themselves would help in the construction of the dikes, and the \$10,000 was primarily for construction materials for the dike. A public subscription campaign was undertaken. Approximately \$2,500 was collected for dike construction and improvement efforts. Unfortunately, however, the members of the committee that had been charged with collecting the money began to dispute among themselves as to how the dikes should be constructed and who should lead in the project development. Finally, because of such dissension, the work was abandoned. Some of the damage wrought by the floods of 1880 and 1882 was noticeable until after the turn of the century.

Even in the mid-1880's, the federal government took cognizance of the problems and the potential value of the Skagit River Valley. The United States Department of Agriculture, in its Annual Report for 1884. described what was taking place in the Skagit River Valley: 32,000 acres already under the plow, some 150 miles of dikes constructed by the resi-Indeed, the Agriculture Department estimated the value dents themselves. of the dikes already constructed in the valley at over \$175,000. The clearing and diking of the land continued, however, largely through the individual efforts of the farmers themselves. Also in the mid-1880's, cooperative diking efforts again went forward, a public fund was put together, and again it was Thomas Hastie who spearheaded the effort to gather the money. New drainage ditches were dug and new dikes were built. It was estimated that the main ditch built through the Joe Larry Slough and Olympia Marsh was worth about \$1 per acre. Some five miles of draining ditches and dikes were constructed through this cooperative effort of the farmers themselves. By late 1887 Rienzi Whitney was back in the business of building dikes. This time he had bought a tract of salt marsh, some 700 acres, and spent \$10,000 in an effort to recliam the lands, install as system of pumps, and dike and clear it.

By the late 1880's, at long last, a government agency began to take an interest in the problems of the farmer, but it was not the federal government, it was the county government. In a special session of the County Commissioners for Skagit County in February, 1888, it was agreed that the Board would establish diking districts after studying the actual conditions of the valley. They planned to act under the terms of a law of the Washington Territorial Legislative Assembly that had been approved during the winter of 1888. The first diking district sponsored by the county was formed and construction began. This led of course, to other requests. Twenty-three other farmers in the valley came forward, asking the County Commissioners to establish a second diking district. This one was described as commencing on the west bank of the Skagit River near the confluence of the north and south forks of the Skagit River, running from there to the head of Fresh Water Slough, and following the bank of that slough to the south fork of the Skagit River, then up the mid fork to the point of origin. The County Commissioners accepted that request, also. By the close of the 1880's, the Skagit County Commissioners had

seen the wisdom in retaining a professional surveyor and had done so. The surveyor was charged with providing the necessary expert advice in the construction of future dikes and in the maintenance of those that had already been built. H. E. Wells was hired as surveyor and was told to review existing diking districts and locate the dikes and dams that would be necessary for the protection of the residents of the valley and for the cultivation of the land of the river valley. In following years, further petitions were presented to the Board of County Commissioners and most such petitions were granted. Beginning in 1888 and through the 1890's, there was considerable activity sponsored by the county, much of the labor supplied by local residents, but materials purchased by the county. In 1889, for example, one diking district was appropriated \$4,000 for the construction of dikes, another, \$4,000, a third diking district, \$2,000.

The commissioners began to consider the possibility of levying special taxes on the residents to pay for the diking and reclamation projects that had been undertaken. A special dike tax was introduced.

By the late fall of 1892, the diking and drainage projects were so numerous and extensive that there was great confusion as to district boundaries. For example, one diking district was called the "Olympia Marsh District," but no one was sure where it began or ended, so the Commissioners decided that they would end the confusion by simply numbering the diking districts. The result came as a surprise: when they were through surveying existing work, it was found that there were nine large diking districts. The following year, in early 1893, one diking project alone was appropriated \$10,000. The dike taxes, meanwhile, were accumulating. In one district, \$2,500 was collected through the tax. The Commissioners concluded that if there could be diking taxes, there also could be taxes levied on the ditches. So a ditch tax was introduced. The total taxes collected for all the diking districts in 1892 was over \$43,000, not bad, since the following year the Commissioners apparently decided to balance their budget and spent only a little over \$1,100 of the money thus collected to maintain the dikes and ditches.

Hundreds of acres of land, however, were reclaimed in the early 1890's, and many of these reclamation projects were continued as individual or voluntary private projects. In the early 1890's, there was a rash of public meetings once more and, again, the residents were gathering to protest the lack of interest on the part of the federal government. They urged that Congress instruct the Army Corps of Engineers to do something about the river's condition and investigate the need for further diking in the valley. By 1894, the river was substantially diked, from its mouth to points beyond Sedro Woolley. Most of the drainage ditches, too, had been improved. But there were bad floods in the 1890's and in many cases the dikes did not hold. Floods in 1894 and again in 1897 drove many of the residents to, again, protest federal inaction. The Army Corps of Engineers, meanwhile, after the flood of 1894, made a careful survey, and estimated the cost of the damage caused in the flood of 1894 at over one and a half million dollars. The Corps launched no extensive anti-flood projects. Still, by the close of the 19th century, Sterling Dam was being constructed at the head of one slough, a tributary to the Skagit River, and this was thought by many to be a partial solution to the problem. A series of dams, some argued, would at last remedy the situation and tame the mighty Skagit River. Surveying the river valley at the close of the 19th century, one would see many miles of small dikes and

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small drainage ditches, about 75 percent of them contolled and maintained by the county; the rest maintained by private residents.

Had they solved their problem? There were experts who argued that building dikes raised the level of the river and actually increased the possibility of flooding in the future. There were many others, of course, who denied that argument. The debate continued into the 20th century, but in the meantime, those who had sponsored and constructed the dikes seemed to have proved one point: that if the river could be tamed, at least temporarily, the valley had great potential as a center for modern agriculture.

AGRICULTURAL LABOR IN THE SKAGIT VALLEY: A PERSONAL PERSPECTIVE

Trina Ozuna Skagit County resident and former field worker

My mother and father were born in Mexico and came to the United States in the very early 1940's. In the early 1940's they were in Wyoming, working in fields there, and that's where I was born. My father wasn't an educated man and all he could do was field work. He heard that there were good jobs in Washington so he decided we were going to come here. My father started working in eastern Washington with the growers there who had hops, beets, tomatoes, cucumbers, and other crops. And in 1951, he decided that he would like to come to the coast to work in the strawberries. He had heard that strawberries were very good out here and a lot of his friends were coming here, so he decided he wanted to join them.

Before we arrived, I married. My husband was a migrant worker; he traveled from one state to another. My father moved to Lynden, Washington, and bought a home. He did pretty well. My husband was traveling from state to state, working in cotton fields in California, working in the beets in eastern Washington and then coming over here to work in the strawberries, raspberries, cucumbers, and cauliflower. When my oldest child was born, my husband decided that we were going to keep traveling. When my child was about six years old, she started school here in Mount Vernon and had been there for two months when we had to take her out of school and go to eastern Washington to work in the beets. It was hard for him to take her out of school because she liked it there. She liked the teachers and she liked the area. When we moved to eastern Washington I had to put her in school there. And I remember the first day she went, she started crying because she didn't want to go to that one, she wanted to go to the school here. So, my husband and I decided that we were going to stop traveling as migrant workers and settle down in one area, and we chose Skagit to settle down in. My husband found a steady job here and we've been here ever since. My children have all gone to schools here and to Skagit Valley College.

I have helped run programs to help migrant children or migrant families to settle down and lead a life where their children can get an education. Many migrants have stopped traveling and are settling down. In Skagit, many of them now work in the welfare office, in the employment office, Skagit Valley College and Intalco Refinery, the oil refineries, and in fishing. Fewer migrants work in the fields since machinery has begun taking over.

Still, during the summer, there's no reason for children to be wandering in the streets. There's a lot of work for them. They can help harvest the strawberries and raspberries or work in the cucumbers. That's one of the reasons why we have liked this area very much, because our children can work as well as get an education.

EFFECTS OF FLOODING ON THE FARMS AND FARM LIFE

Frank Easter District Conservationist Soil Conservation Service

The Soil Conservation Service, which I represent, has been here for 32 years. It's interesting to learn about farmers trying to get federal assistance, even back in the 1890's. It took until 1932 to get a soil conservationist. That was as a result of larger commercial farms. Ours is a unique federal agency in that we report to Skagit conservationists, locally elected people who represent people in the Skagit County, not only farms, but everyone.

In every flood we've had in Skagit County, you get debris covering the farmland. Now, there are many crops wintered over in the Skagit Valley and the damage that standing water causes on those crops is tremendous. This is just one of the problems farmers have. If it's not silt that covers crops, or standing water that covers crops, it's the debris of the river carried in. Incorporation of usually sandy material that was transported there by the flood waters really is a problem. I've heard several farmers recall that since the 1951 flood when the dike broke at Conway, even the incorporation of the material that far back is still seen in the soil now. So what they're really doing is incorporating the sand into the material. I might mention that there is some argument as to the control of floods in the Skagit valley. Some say, why not let it flood, that's how the soil was enriched originally. That may be, but it took thousands of years to do that; the material that is carried down by the river now is much different than what it was many years ago. It's a lot sandier material and a heavier silt that is deposited there now. It is much different. The kind of damage that is caused from Spring floods is, of course, much different than a winter flood. In 1967 there were crops in that were damaged, and farmers had to start all over again. South of Mount Vernon, we've got a highway now, so that if the river ever did top the dikes, we've got a highway that could change the pattern of the river. No one knows really just what direction the river would flow if the dikes break. Interstate 5 near Burlington could really be damaging, because there are so many high fills. After every flood, people start to think about the river and we've had attempts to stabilize the aggressiveness of the river. Some have been good, some have been not so good.

We have made some real gains in stopping erosion of the stream bank. I think we're still learning the ways of stabilizing the river bank and not adversely affecting fisheries. Destruction of shade adjacent to the river is still a big problem. But we really think that by sacrificing the shade we are controlling probably the biggest source of sediment that the Skagit has by stabilizing the stream bank. And this in turn adds to the population of the fish in the river. In stabilizing the stream banks, we encourage the use of cost-sharing money to develop conservation practices. We have a Stream Bank Protection Committee in Skagit County that is farily new. Because of the amount of permits and different agencies that are involved in stream bank work like this, the committee was formed of representatives of these different agencies so that we could all sit down together and hash out our differences as to projects done every year in conjunction with local land owners. The committee is made up of the Soil Conservation Service, the Department of Fisheries, the Department of Game, the Department of Ecology, the County Planner, and the Agricultural Stabilization Conservation Service.

The involvement of the farmer, which really is what I'm supposed to be talking about, can be seen almost everywhere you go around farms. It's become a practice now for dairy farmers to have storage tanks to store waste from the animals, which become a useful tool during high water. If the farm buildings become surrounded by water, a lot of this animal waste can still be put into tanks; of course, this applies to the river at its lower levels, also. One of our big jobs in Skagit County is drainage of our flat fertile agricultural lands. Things have changed a lot. Instead of putting in concrete tile, now we use plastic tile and polyester tubing. This can be put in a lot faster, and its durability is really improved. We are all the time changing and improving our technology. A present day tile machine digs the ditch, lays the plastic tubing, and covers it back up all in one operation. A tile machine can lay 3,500 feet a day depending on the conditions. More and more farmers are having their land drained because it gives them a bigger grain crop. Vegetable seed, which is a big crop here, has to have class A drainage. It has to have the best drainage that we can give it. A lot of time our tile or our drainage tubing in each basin is only a hundred feet apart. This gets to be quite expensive. The installation of tile is how we handle water when it comes into the fields. It really becomes a problem in this county because it's so flat; if the river is backed up and the ditches back up, there may be no place for the water to go. But now we have put in the drainage tiles. Water may stay in the fields a short period of time, but as soon as the water is down in the river, the water goes down in the fields. The newest tile machine is guided by a laser beam. We do the engineering for the farmer and give the information to the tiling operator. He sets his machine with the laser beam and follows the grade that we give.

There are a lot of false hopes put on some river dams for flood control. We've been misled, really, because the total effects of flood control structures on the Skagit River and its tributaries only amount to 25 percent of the total valley. So, we must start thinking about something else. A lot of people live in the flood plain. This is a prime example of people living within a flood plain community in a danger situation.

HISTORICAL PERSPECTIVES ON THE HISTORY OF THE UPPER SKAGIT VALLEY

Glee Davis, long-time valley resident and historian

Glee Davis' family came from Denver, Colorado, in July of 1890 to Marblemount, from Seattle to Mount Vernon by steamer, the steamer, "Henry Bailey," on which Josuha Green was the purser. Next, from Hamilton on the steamer, "Indiana." Next, they boarded the first stage over the new road to Sauk City, crossing Baker River on a ferry. For the following four years, the children attended the winter and spring terms in a school in Mount Vernon, going down river in a canoe.

Canoe freighting was carried on in the district until 1896 and to Godell's Landing, to May, 1898. when Karl and Wade Bullers and Frank Davis brought the last load in. This part of the river was rough and the portage eight miles long; the goods had to be carried along bouldery shores for about seven hundred feet, and a canoe had to be lined up over the rapids and reloaded.

In 1890, Morgan Davies, at old Marblemount, made the first ferry by placing two canoes in parallel, then planking oak, then placing lines up to a carriage that traveled on a cable crossing the river. Two other ferries were installed a year later down river a quarter mile. The first horse bridge to cross the Skagit was built in 1892, three miles above Godell's Landing, built by miners and prospectors; it washed away with the June, 1894 floods. The Skagit was bridged at the mouth of Ruby Creek in 1895 by miners.

Regarding dams, in 1893, a wing dam was constructed along the east side of Skagit, about one half mile above where Ross Dam now stands. The dam was to shear the river away from a gravel bed containing gold. About 1885, a canal was dug above Panther Creek on Ruby Creek so that the gold rich ground on Ruby could be worked. A bridge was built, but the dam was never completed.

In 1898, a large hydraulic works was started at a cost of about \$500,000. They built a saw mill up on the side of Ruby Mountain to cut lumber for a small town-site. A three mile flume five feet by eleven feet carried water from the dam across Ruby Creek to the gravel beds near the Skagit. From the pressure-box the water came down through large pipes to the nozzles. This lasted over a period of two and a half years.

In 1905, Slate Creek was dammed and brought down to a hydroelectric generator through a flume. That year, also, B. M. Biggs, J. S. McCrystal, M. W. Patrick, and Charles Freeman came through exploring: then, in 1908, began surveying for the Davis, Rockboint, and Diablo Dams. B. M. Biggs has credit for naming the Fox Canyon Diablo. These men were all from Colorado and apparently worked for the Skagit Power Company. Statadle Creek Dam was constructed by Frank and Glee Davis to furnish the Davis ranch with irrigation and electric power.

FLOOD CONTROL AND ITS RELATION TO THE RIVER AS AN ENERGY SOURCE

Jack Mylie, County Commissioner, Skagit County

The earliest recorded discharge of a flood on the Skagit River was in 1815. It had 400,000 cubic feet per second. Today, a similar flood would bring eight to ten feet of water into the town of Sedro Woolley and would cover the whole valley. The next recorded one was in 1856 and was 300,000 cubic feet. In 1896 was 185,000 cubic feet, in 1897 190,000 cubic feet, in 1906 180,000 cubic feet, in 1909 220,000 cubic feet. That's getting up to where my dad could tell me something about the floods. He was in Mount Vernon at that time in the river bend area, where the malls are now: there are still some of the old houses there, and they're built probably four or five feet off the ground. He said they rescued people out of these houses by rowing the boat to the second story window.

In 1917 there was a flood of 195,000 cubic feet. The one that I really remember, was in 1921. I was 7 years old and got my first pair of hip boots, and I learned to row a boat. Everything from Burlington south was flooded. The 1932 flood was not too big, but it did break through in several areas. It registered 147,000 cubic feet of water. There were two floods in 1933, in February and in November. Then in 1935, we had 131,000 feet of water. In 1949 and 1951 were the next two big floods: one 140,000 cubic feet and one 144,000 cubic feet. Then, last December, which was really a small flood (we call it eightyear flood.), 129,200 cubic feet per second passed by Mount Vernon.

Last year we were lucky. It reached the top of the dikes and created a lot of damage from Concrete on down. The major part of the damage was in the area from Concrete to Sedro Woolley. Actually, below the Sedro Woolley area, there was not too much damage: it took rock out along the banks and washed away some dikes, but there wasn't any serious flooding except in the south end in the game range area.

Now, we had a scare on Mount Baker. Upper Baker Lake was lower at the time that this flood came, so we freed the flood storage of Baker Lake and I'm sure that if that had not been available, water would have been running over the dikes because I have pictures of the area near Burlington, where the river was at the top of the dikes. In other areas they were sand-bagging to keep it from running over. That small measure of flood control might have been the straw that saved us last winter. Now, the Upper Baker Dam project was tied in with another project, recently approved, called the Lower Levy Improvement Project. The Army Corps of Engineers has received a hundred thousand dollars in appropriations this year to finish the engineering on the lower levy. That would include widening and raising the levies from the mouth of the river to Sedro Woolley and also widening the river in two or three locations between Sedro Woolley and the mouth. They hope to have that project done by 1981. That would give us fifteen year flood protection in the lower valley. But, that's not doing anything for the river from Sedro Woollev up, the upper regions of the river. At one time in the thirtles, a project called the Avon By-Pass was approved that was to channel the

water south of Burlington to Padilla Bay. It would have taken about three hundred acres of farmland; there would have been big dikes erected across the valley. It was not a very popular project with the people, so nothing has been done about it and I do not think there ever will be.

The Skagit County Board of Commissioners, in the last few years, has really been working on flood control. Nonetheless, the valley is susceptible to a major flood that could cause hundreds of millions of dollars in damages. We had a meeting with Congressman Meeds and a representative of the Army Corps of Engineers recently. The Corps of Engineers would like to have a basin study of the Skagit River, especially on the Sauk, in conjunction with the Wild and Scenic River Study. The object of the Sauk study would be a dry dam project. Despite the projected dam, the river would flow free at all times, except when the river was flooding at its peak. You would close the door, you could back the water up for a couple days, later turn it loose, and the river would be free-flowing again. The cost of the dam is estimated now at anywhere from thirty five to fifty million dollars. The cost of the study would be about four hundred thousand dollars and it would take about four years to complete.

The Skagit River is a beautiful river. They call it a wild and scenic river. I don't think any of those who are promoting a wild and scenic river ever saw one as wild. I think it can be used, the floods can be controlled, but I still think it is a wild and scenic river.

RESOURCES FOR THE EISTORY OF THE RIVER'S HYDROELECTRIC DEVELOPMENT

Liisa Fagerlund, Curator of Manuscripts University of Washington Library

I've always taken Seattle City Light for granted, and until I was preparing for coming up here tonight I hadn't realized to what extent Seattle is indebted to the Skagit River for our lights and power, but we certainly are grateful, though maybe not grateful enough.

Since the principle reason I was invited here tonight is the fact that the records of Seattle City Light are in the Manuscripts Collection at the University of Washington Library, I would like to tell you a little bit about the Manuscript Collection, about the Seattle City Light records, about manuscript records as opposed to book materials and about other related records that are in the Manuscripts Collection.

Perhaps I should start by giving you some idea of the difference between manuscripts and typical library materials, that is published books, magazines, and newspapers. Most library materials are published materials, such as books that have been compiled by historians or other writers. But the materials we have in the Manuscripts Collection can be distinguished very easily because they are not published materials. They consist primarily of letters, correspondence, reports, unpublished minutes of meetings, legislation, legal documents, and contracts. They were usually not written or produced for wide distribution, but were written for the purpose of communicating with another individual or company, or for purposes of recording, documenting, providing statistics for every-day-operating of a company, or in this case the city government. I'll show you some examples of these and maybe it will become a little clearer.

The University of Washington Manuscripts Collection actually began about 1919 when the library purchased Clarence Bagley's collection of historical materials. Clarence Bagley was a historian and, as was often the case in those days, historians had to collect their own materials. Libraries hadn't really become involved in manuscript collecting and in order for a historian to have sources to work with, he or she had to do the collecting. So when the library purchased this large collection of Clarence Bagley's, it formed the nucleus of the Manuscript Collection. It included many pioneer records and records of some of the early territorial administrators and the early settlers of this area, particularly the Seattle area. But from 1919 until 1950 these records were administered through the Reference Division in the library and it wasn't until the late 1950's when the Manuscripts Division in the library was set up, and a Curator of Manuscripts was appointed.

The Manuscripts Collection consists principally of primary source materials relating to Western Mashington with particular emphasis on the Seattle area. It is strong in records of politics and government such as papers of governors and mayors, other legislators, political leaders, also city activists: people who were involved as private citizens in city government and in making their views known to the legislators. Also there are papers relating to urban affairs, policies and problems of the urban environment. We have very strong holdings in forest products industries, and a number of timber companies and mill companies have their records with the Manuscript Collection. Records of cultural activity in the city and in the area are included.

One of the strongest sections concerns hydroelectric power. And that's where the records of Seattle City Light come in. In terms of volume, I think the records of Seattle City Light are about the largest in the collection concerning hydroelectric power. The first superintendant of Seattle City Light was James D. Ross who continued as superintendant until approximately 1939. The first and major accession of Seattle City Light records constituted primarily his papers, and his personal correspondence is very heavily mixed in with those early records. The first accession covers 1896 to 1939 and, of course, predates J. D. Ross. The records of Seattle City Light are all stored in these archival boxes. This is a very familiar type box in archival repositories. It's made in Virginia and one of it's primary features is that it does not have a high degree of acidity, so that, unlike newsprint and other papers which have a high acid content, will not break down, nor will it harm the papers that are stored in it. It acts as protection. We store most of our records in such boxes. When I speak of the number of boxes of incoming correspondence or outgoing correspondence, you can think in terms of these approximately fiveinch boxes.

Included in these Seattle City Light records are correspondence, business records, legal documents, legislative bills, reports, speeches and writings, general and financial statistics, technical data, and biographical material. The bulk of the collection consists of correspondence that documents the growth of Seattle's municipal power system, the impact of public power on the economy and politics of the northwest and Nebraska as well as the U.S. in general, and the rapid sophistication of electrical systems and transmission techniques, natural resources, conservation, flood control, and multiple use of lands. Much is critical correspondence with engineering firms, investment houses, electrical manufacturers, city, state, national and Canadian government bodies, railway companies, labor unions, newspapers, journals and others. Seattle City Light became probably the largest municipal utility company concerned with electrical power and it's prominence in the U.S. makes it one of the reasons why it is such a popular source of study.

To give you some idea of what's in the collection, I have a couple of inventories here. Approximately the first forty boxes in the Seattle City Light records, the first group that goes through 1939, contain the outgoing correspondence of J. D. Ross. When you think that forty of these boxes are simply copies of all the letters he sent out, you begin to get an idea of the volume of work that he produced. I brought along some of the contents, too. City Light was granted the rights to develop the Skagit Valley by the Department of Agriculture in December of 1917 and they immediately had to face charges that they were really infringing on the territory or private power companies, particularly the Stone and Webster concern which had an earlier option on the river which they had not developed. In the outgoing correspondence for June 1918 we see a letter that J. D. Ross wrote to a Mr. D. Skinner who is chairman of the Citizens Committee for Investigation of the Skagit Power Site.

(That sounds like a committee you would find in the 1970's doesn't it?) He says, "Dear Sir, There is no doubt a feeling among some of the businessmen that the wresting of the Skagit River Site from the Stone and Webster concern after they had put considerable money into it, shows there was not a proper move on the part of my department and myself. I wish to correct this impression by a short statement to yourself as chairman of the committee." It takes him three pages to explain how he justifies his involvement, and he closes, "We assure you that our motive in developing the Skagit, is not one of competition simply for the purpose of competition, but to do the greatest good to the greatest number by the development of a great industrial center." And throughout J. D. Ross' correspondence there is a great emphasis upon city building-on the building of a great industrial area. He felt that this would bring prosperity to the whole Western Washington area and that was one of the reasons, perhaps, why he felt it was not infringing to become involved in the Skagit even though Seattle was some distance away. (This also points to one of the large areas of interest in the manuscript collection, this whole debate on public versus private power. I'll mention later some of the other record groups that we have that also provide a great deal of source material for studying this controversy which has been going on for a long time in Washington state and is certainly not over.)

You may remember that I said that the letter I was just reading from was to Mr. D. E. Skinner. I decided I would check the incoming correspondence, then, to see what the other side of this correspondence was, what the citizen's committee had written to him, and how lively the debate had become. I found a letter to Mr. J. D. Ross from Mr. Skinner who was president of Skinner and Eddy Corporation, dated May, 1918. 'My Dear Mr. Ross, Please remember that you and your staff are at all times more than welcome at all of our launchings. (Skinner and Eddy Corp. were ship builders). We should be pleased indeed if you would have someone call at this office and ascertain when the launchings are to be. We enjoy as much having you there as you can possibly enjoy witnessing these events. Upon government instruction some time ago we were compelled to desist from sending out invitations. Yours very truly, D. E. Skinner." That certainly sounds very friendly. And then there's a copy of a letter that was sent to J. D. Roos of a letter that Mr. Skinner wrote to the Honorable Ole Hanson, who was at that time mayor of Seattle. He writes to the mayor, "When we inaugurated this enterprise, (the development of the Skagit) two years ago, one of my associates made a tentative agreement with the city lighting department to serve us with light and power. In discussion with Mr. J. D. Ross, Superintendant of the Lighting Department, I advised him I was personally opposed to municipally conducted enterprises, and that I preferred not to be bound by the contract. He stated that he would have agreed with me three years before, but he was confident that I would be convinced, as he had become, that the city could serve us to the best advantage. I wish to advise you that I have become thoroughly convinced of this fact and the efficient service we have received with the abnormal increase in our demands in our ship-building industry have been met even beyond any anticipations we could have had ... ," He goes on and on, explaining how wonderful his rates were and so on. Either Mr. Ross had been very persuasive with regard to the validity of their plan for

the Skagit or the Citizens' Committee for Investigation was not a very serious opposition to Ross in the first place. It's interesting, too, that the time when the Skagit plans were being developed was during the first World War when ship-building was very important and the power needs were very great. One of the debates with regard to the development of the Skagit was whether the fuel and energy should be diverted from war related industries into a project such as the Skagit. Ross said, "But it will produce so much more power that we really should go in to it." Other people, such as the Stone & Webster concerns who were the private power representatives said, "You should use the power companies that you have now, which are adequate, and wait to develop the Skagit source until after the war when the energy won't be wasted."

Another part of the City Light collection is the collection of speeches and writings of J. D. Ross. Even as late as 1938, he was giving speeches explaining the advantages of the Skagit proposal. For example, "The principle advantage of the Skagit River for production of power are the high sustained river flows due to the generous rain-fall and large amounts of glacial area which holds the winter rain-fall until the snow and ice melts...." I found a rather curious item in this same folder which I brought to show you that there is a great deal of variety in primary source materials. This is a poem and while it is not a very good one, it is related to the topic, so I thought I would read a little of it. The subject deals with a controversy concerning the location of transmission lines to bring power from the Skagit to Seattle. One proposal was to bring the lines on the east side of Lake Washington and through the town of Renton on the way to Seattle. But Renton did not agree with the proposal:

> Now Renton and Seattle fight and show no signs of pity They make us detour City Light to bring it to the city. They fight without a hint of truce, I wouldn't bet a cent on the move

- To bring the Skagit's juice right through the town of Renton.
- The men of Renton stand on guard in sunshine and in showers
- We can't plant lightpoles in their yard amidst the lawn and flowers.
- The Cedar River's locked on course and is ready for all comers
- They'll fight it on this power line if it should take two summers.

That's half of it, but I think it is enough!

Before City Light could get approval to go ahead with their plan, they had to get it passed by the U.S. Federal Trade Commission: principally by the Sub-Committee on Capital Issues. The Sub-Committee on Capital Issues, meeting in San Francisco, wanted to know how feasible the plan was. J. D. Ross, of course, thought it was feasible and commissioned two people in his department, Bachelor and Gallant to write a report entitled "The Situation of Puget Sound District." (Incidently, we now have the papers of Willis T. Bachelor in the Manuscripts Collection as well.) It was countered by another report by R. H. Thomson who later became city engineer. A report was also submitted to the committee by a group hired by the private power concerns. It is no wonder the Capital Issues Sub-Committee was confused. We have the records of the Capital Issues Sub-Committee in the Manuscripts Collection. Here is a letter from the sub-committee records from Puget Sound Traction Light and Power Company dated April, 1918. They were e private power concern, of course, and didn't feel that City Light was justified in this project. On the second page they say, "If the City of Seattle needs more power, and they will only need it by taking business away from us at rates which are less than the cost of furnishing the service, the deficit being made up in one way or another by taxation, it seems to us that they should add to their steam plants and not attempt to undertake tremendous water power developments calling for material and labor with~ drawn from the government needs in this emergency. The proposed Skagit development was held by us for several years and given up. It's a tremendous project and five million dollars will not begin to complete it as is planned."

We also have a second accession of Seattle City Light records which carry through to 1960. It's an even larger group of materials, I think there are more than a hundred, not boxes of this size, but standard cartons. I regret to say that they're not quite as well organized or as processed as the earlier records, which is one reason why all my examples tonight come from the earlier years. The records of Seattle City Light have been used for research purposes. There have been three theses particularly which have used them. Some of you may have met some of the people who have written these theses, because they were undoubtedly in this area interviewing people. A man named Paul Pitzer wrote a history of the upper Skagit Valley from 1880-1924. Wesley Dick wrote a thesis entitled "The Genesis of Seattle City Light to 1917". Another man named William Sparks wrote a thesis entitled "J. D. Ross and Seattle City Light, 1917-1932." That last thesis by Sparks deals very extensively with the whole Skagit development and is very interesting reading. All three theses are in general circulation at the University of Washington and possibly other libraries too, certainly copies could be obtained from local libraries if anyone would be interested in seeing them. They make interesting reading, as well as being scholarly works.

The whole field of hydroelectric power is very rich in thesis possibilities. I should also mention, as Dr. De Lorme said, that J. D. Ross went on to work in the federal government - Bonneville Power Administration - and he had a pretty good relationship with F.D.R., partly because of his beliefs that the power generation should be publicly controlled. The papers of Seattle City Light and J. D. Ross have been used by historians writing on the 'New Deal'. Here's an example: "The Bonneville Power Administration and the New Deal," by Phillip Funigello. It's an article that relied very heavily on the records that we have.

To quote from Nesley Dick, 'The entire swashbuckling, dynamic electric power field is rich in research opportunities. The historian, the economist, political scientist, engineer, administrator, regulator, lawyer, student of business and consumer affairs or the student of communications will find a field of many facets and no lack of controversey and public debate." Because we have believed this to be true and also because of the fact that hydroelectric power and the public verses private power movements have been so important in the history of this area, the collecting of these materials has been a major focus of the Manuscripts Collection. The papers of governors and officials relate very heavily because they were deeply involved, such as Ole llanson, whose correspondence I quoted earlier. We have the papers of Guy C. Meyers who was very active in the hydroelectric power development as a financier. He took the bonds to the east coast where he had offices on Wall Street, and sold the bonds in the eastern markets so that the PUDs could be funded. We have the papers of the Northwest Public Power Association, and of Gus Norwood, who was executive secretary of the Northwest Public Power Association. A number of electrical engineers, the Washington Public Utility Districts Association, the papers of Willis T. Bachelor and many others are included.

To conclude, this bibliography is put out by the Smithsonian Institution, entitled "Manuscripts and U.S. Depositories Relating to the History of Electrical Science and Technology." It's interesting but not surprising to see the large concentration of manuscript sources in the northwest, considering that its so important in the history and development of this area. These records have been preserved and the sources are there for historians and concerned citizens to know what happened in the past and to learn from those events.