

SKAGIT COUNTY DIKE DISTRICT No. 12

ROUTE 6, BOX 98-A
MOUNT VERNON, WASHINGTON

REPORT ON

SKAGIT RIVER FLOOD CONTROL

HEARING

with the

CORPS of ARMY ENGINEERS

UNITED STATES ARMY

February 8, 1961

Mount Vernon, Wash.

Dike Dist. 12 Commissioners:

Bert Beeks, Chairman
R. H. Schroeder, Secretary
James Mapes, Commissioner

EX-13

P 001150

ORIGIN - DIKE DISTRICT 12

Sturgis County, Wyo.

DIKES HAVE BEEN RELOCATED THREE TIMES

- 1881 . . . Private dikes established as the first river protection. Located a distance of from 5 to 6 miles west of the Sturgis River in Sections 8, 17, 20, 29, 32, Twp. 34, R3. Not successful because some property owners refused to pay their share of the cost.
- 1895 . . . State law for the first time permitted dike building districts. Dike District 12 was built along the Sturgis River beginning at Wiles Slough just south of Burlington on the west side of the river, to Burlington, through sections 2, 3, Twp. 34, R3, following the high ground to connect with the Great Northern Railroad SE of Burlington on section 33, Twp. 35, R4; thence following the railroad grade to Sterling Dam.
- 1955 . . . A new section of the dike in the immediate vicinity of southeast Burlington was relocated. In order to give the property north and east of this new area protection, it is going to be necessary to go on up the river to Sedro Woolley and Minkler Lake. **The dike has been raised an overall height of 2 feet for a distance of approximately 9 miles. As they continue to build restrictions into the river below us, narrowing the stream flow, it will be necessary to raise the height of the dike.**
- 1961 . . . Vast sewer systems installed along the river in recent years need protection not now available. New Highway 99 will hold water in a pocket. The board is of the opinion that the local people would be willing to contribute dollars toward a feasible project to eliminate any danger from flood.

P 001151

Unit No.	Total Cost	State	%	Participation		District	%
				County	%		
67		4,960.00				7,849.37	(60)
70	10,000.00	4,000.00				9,147.91	(60)
77	14,960.00	4,806.00	(40)	7,438.00	(30)		(30)
88	2,792.54	1,117.46	(40)	....		1,675.08	(60)
93	61,254.49	23,806.72	(40)			37,447.77	(60)
95	13,104.56	5,151.20	(40)	3,978.00			
96	5,707.01	1,860.00	(40)	1,913.50	(30)		
109	4,778.05	1,911.22	(40)	1,433.41	(30)	1,433.42	
119	3,624.62	1,441.88	(40)	1,091.37	(30)	1,091.37	(60)
120	12,970.00	5,188.00	(40)	3,891.00	(30)	3,891.00	(30)
121	11,600.50	4,630.24	(40)	3,485.13	(30)	3,485.13	(30)
133	7,206.00	2,882.40	(40)	....		4,323.60	(60)
137	2,099.40	839.76	(40)	629.82	(30)	629.82	(30)
139	5,794.00	2,304.38	(40)	1,744.81	(30)	1,744.81	(30)
144	16,254.00	6,505.47	(40)	4,874.26	(30)	4,874.27	(30)
167	1,719.00	697.90	(40)	515.55	(30)	515.55	(30)
169	802.44	308.00	(40)	....		494.44	(60)
170	22,058.79	8,801.46	(40)	....		13,237.33	(60)
171	25,802.06	10,899.23	(40)	7,451.42	(30)	7,451.43	(30)
TOTALS . .	<u>\$242,038.67</u>	<u>\$94,646.41</u>		<u>\$34,495.95</u>		<u>\$111,845.49</u>	

*Projects since state participation in 1953.

DIXING DISTRICT 12

WARRANTS ISSUED

In 10 year periods

1915* - 1919	\$ 37,597.22
1920 - 1929	69,322.01
1930 - 1939	72,763.94
1940 - 1949	33,218.72
1950 - 1959	<u>254,597.35</u>
Total	\$487,699.45*

State Participation

1950 - 1959	94,646.41
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County Participation

1950 - 1959	<u>34,495.95</u>
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Over all Total. \$616,841.81

*Above totals includes real estate and attorney's fees.

VALUATIONS

1917 - 1918	\$ 110,000.00
1950	<u>\$ 554,642.00</u>
1959	<u>\$4,348,345.00</u>

Note: Over 6500 acres is enjoying protection from Dike District 12, without compensation to the district, including Town of La Conner. Approximate overall valuation in excess of one million dollars.

Real estate for right-of-way and borrow purposes bought by the district in the past 10 years \$21,333.00

P 001153

Acreage in diking district 12 18,400 acres

FLOOD PROBLEM

from

LA BONNER COMMUNITY DEVELOPMENT STUDY

of 1956

sponsored by

UNIVERSITY of WASHINGTON

The Skagit River Flood Problem

The investigation of the Skagit River flood problem is one problem upon which farmers and townspeople alike in our area can find a common ground. We have all lived with our Skagit River a long time and have often become complacent about the very real flood danger which exists. In some small way may this report help to show how our area must work to protect itself from the threat which does exist.

The development of this area has always depended upon diking and drainage which are to this day constant problems, since most of the flats are reclaimed from tule and tidelands. At first, each settler with the help of his neighbor built and repaired his own dikes using shovel and wheelbarrow. Despite the productivity of the Skagit Flats, farming on the flats was not without risks. In 1882, six feet of flood water inundated the land, damaged crops, and broke the dikes. But in spite of such setbacks the Flats prospered during the next few years.

Again, during several consecutive years, flood ravaged the Flats. In 1886 the Skagit River overflowed and froze and in 1887 a late spring freshet damaged crops. From 1892 to 1894 disastrous

floods and high tides covered the land with great loss of both crops and stock. Times were indeed hard and most of the farms were heavily mortgaged when in November of 1906 still another flood occurred.

In periods of high water the Skagit would overflow its banks, sending a flood of muddy water down over the Flats, inundating farms and softening privately made earthen dikes along the sloughs, as well as Padilla Bay on the north and Skagit Bay at the south end. Repeated losses of property and destruction of dikes happened so often that public opinion was aroused and appropriations secured to begin protective diking along the Skagit. An early attempt to organize diking districts was unsuccessful because some owners refused to pay their share of the costs.

Creation of State Diking Districts

The districts were started by groups which petitioned the County Commissioners for the formation of a diking district. The County Commissioners acted only as an agent to see that the district was legally set up. A board of commissioners was elected, the organization completed, and a tax levied. The diking district commissioners have complete authority and control to see that the work is done, mainly by contract, since the district seldom owns any equipment. Construction and maintenance costs are met by assessments and collected by the county.

The engineers have established intervals at which time we may expect the various floods. We may expect a 1951 type flood of approximately 145,000 second feet at Mount Vernon, about once every 16 years. The 1909 flood of 195,000 second feet at Mount Vernon we may expect every 50 years and the 1949 size crest, 110,00 second feet.

every 6 or 7 years. It is the opinion of former Skagit County engineers, and the corp of engineers that it is the 1909 flood crest that we should prepare for. In other words, river rising and control work should be based on an assumption that such an amount of water must be handled.

In 1909, 1917, and 1921 floods all caused considerable damage in the Skagit Flats area. There were breaks in the river dikes at Avon and near the Harmony School and flooding over almost the whole area. There were also very serious breaks by flood waters into Swinomish Channel at several places with loss of farm land and crops from the salt water coming in. La Conner and Burlington proper were flooded.

More Recent Changes

If the 1909 crest size is what we must prepare for, it is vital that the community find out if in fact it is prepared. Since over 35 years have past since a flood approaching this size has been experienced, we might expect certain changes in conditions to help or handicap our ability to meet such a crest.

The considerable dam system on the headwaters of the Skagit is one of these changes. Another important factor affecting our area is the efforts of those who live farther up the Skagit River to avoid flood damage by increasing their protection. Burlington, Sedro Woolley, and other areas up river have grown enormously and have been looking to Skagit River control work. The net effect of this up-river work to us who are on the lower Skagit is that we must be prepared to handle more water than ever before, allowing dam protection of 10%.

Further, a flood in our area would be economically more serious and cause greater damage to property and danger to life than before.

Population has grown and more businesses and homes would be damaged.

Most new buildings in our area are built close to the ground without flood threat consideration. If flooding occurs, the water will have to build up to greater depths before the inevitable break out to the Channel or bay occurs.

DIKE DISTRICT NO. 17

SKAGIT COUNTY

ROUTE 4 — BOX 15

MOUNT VERNON, WASHINGTON

February 8, 1961

History of Dike District number 17.

The year 1907, the farmers of the area North of Mount Vernon, to Riverside Ferry and from the hill East of Great Northern Railway to the Avon bend, formed this dike district to hold the Skagit River within bounds.

There were a number of floods prior to 1915, that did break the dike, since that time there has been but two floods in the area, those in the year of 1917 and also 1921.

The first of these two the break in the dike was on the Finstad place, located one mile West of bridge, this in turn caused the water to overflow the dike near Mount Vernon, washing out a large section of dike as it returned to the river. The cost of dike repair bring \$31,399.00.

December 13, 1921, the high river broke through on the Cornish place $\frac{1}{4}$ mile West of bridge, with the water returning to the river in the same way as the previous flood. The cost of dike repair was \$32,040.00.

The high water of 1934, caused a dike repair in the amount of \$4,232.00.

Ten years ago this week the river was at flood stage, and the water topped our dike on the C.A. Hanson farm. With sand bags and the help of many people from near and far the dike was saved.

This high river prompted a sarvey of the dike system, resulting in the raising the dike to a uniform high, which is some 18 inches above the 1951 level. The expenditures in this ten years being \$109,764.00.

Earl Hanson, Secretary

Exhibit 15

FLOOD CONTROL ON THE SKAGIT RIVER

Exhibit 17

Dike and Drainage Imp. Districts #20-- Location-East and north of Great northern Bridge to the mouth of Nookachamps Creek. Size of District-650 acres. Dikes- App.

1/2 mile of main dikes balance high banks with a low dike along Nookachamp Creek.

Drainage--One main ditch serving district with flood gates under main dike.

Problems--1. Dikes built on sandy soil.

2. Dikes not high enough to keep out water over 24ft. flood stage.

3. When district is covered with water in 24ft. flood, it takes too long for water to get out as rate of flow in ditch is too slow.

4. Too much pressure on dikes when flood waters in Skagit River drops with a 6 to 10 ft difference between height of water in rivwe and water inside dike.

5. During real high water 25ft too much backing up caused by restricted flow at point of Great Northern Bridge. A difference of 4 ft has been noted between water on East side of bridge compared to West side.

Recommendations--1. Dikes be raised to take care of 25ft flow on Skagit River. Estimated cost\$20,000.

2. A spillway be built in low spot of district to either let water in or out as desired. (Note our only desire is to keep out spring freshets.) Cost of spillway\$25,000 estimated.

History--Over past 20 years we have had 5 major breaks in our dike. Estimated repair cost approximately \$50,000.

Nookachamps as a Storage Basin During Flood Waters--

1. If such a plan is adopted a spillway for district #20 would be a "must".

2. The present land holders with homes and barns on the lowlands should be assisted to move to higher ground



[Geo. Davis]

Exhibit 17

Concrete Herald

PRINTING AND PUBLISHING

February 6, 1961

Col. R. P. Young, District Engineer
U. S. Army Engineer District
Seattle 4, Washington

Dear Sir:

As editor of the upper Skagit valley newspaper for the past thirty years I feel that I have a great stake in the development of the Skagit river, both for flood control and for better use of the river for navigation.

Reviewing the various projects suggested by the U. S. Army Engineers as possible flood control restoratives, the earth dam at Faber is one that should be avoided until all other possible avenues have been used. My personal reasons for speaking against this dam are that such a dam would have too many disadvantages to the upper valley, county and state to be considered as a possible solution to present problems.

First, flooding of the upper valley permanently to prevent flooding of a small area in the lower valley at very infrequent intervals seems a bit fantastic. Due to the five dams now on the Baker and Skagit rivers, control of high water in the Skagit has almost eliminated the flood threats we used to know. Now only freak conditions bring abnormally high water. This high water could adequately be handled by dredging in the lower valley at a fraction of the cost of the Faber dam.

Secondly, the steelhead and salmon runs in the Skagit would be seriously threatened by a dam at Faber as a great portion of the spawning is done above this point. Our experience with fish ladders, etc. has been that the best have been none too good and the runs are bound to suffer.

Third, the Northwest section of the state has been working for many years to effect a cross-mountain highway from the Skagit to Methow valleys. This highway is now on its way to completion. Flooding of the upper Skagit valley would end for all time this important asset to the economy of this corner of the state.

Fourth, the upper Skagit area is a storehouse of untapped mineral resources, still uncut timber and unlimited recreation areas. In the past few years new roads and bridges have been opening up this area and property once believed of no value is now eagerly sought. Land values will rise swiftly from now on--to the benefit of county and state tax rolls.

Fifth, this is home for hundreds of people who love the scenic valley and would not want to see it destroyed without the assurance that benefit gained would many times overshadow the losses suffered. The Faber dam cannot promise these gains.

Other suggested projects on the Army Engineers report could be of more benefit while not having the objections of the main river dam. A dam on the Cascade River would control this presently uncontrolled stream. A site has been chosen for a number of years, but unfortunately it is uneconomical for power due to the small storage area. For power, water and flood control perhaps this could be overcome.

The dam on the Sauk river also has flood control possibilities far beyond the Faber site as it is the real problem of Skagit flooding. There is no control on the Sauk, or the Suia-ttle river which joins it. Silt from the Suia-ttle provides a great share of the mud and sand that fills the lower river. Control on this stream would be a final step on control of all streams or any size which flow into the main Skagit.

Navigation Possibility

As far as a program of dredging that would permit navigation on the Skagit as far as Concrete, you will find little opposition. In the upper valley this plan receives nothing but enthusiasm as our problems are always linked with transportation.

Barging on the Skagit as a regular commercial route for materials would provide outlet for cement, lime rock, talc, silica, lumber and woods products, coal and iron, chrome, olivine, lead, silver and all other types of minerals to be found in quantity in the upper valley. Up to the present time most of this materials has been awaiting access roads which are now just beginning to tap the sources. By opening the river to economical water transportation, these materials become valuable commercially. I believe that once water transportation to salt water is attained there will be a great boom in employment in the upper valley with the resultant boom for the economy of the county and of the state.

The upper Skagit valley is admittedly undeveloped at this time. It is just beginning to reach its potential as the new source of wealth for the county. Due to this I strongly urge that the program on the Skagit river be tuned to the development of the Skagit area by forward-looking projects that will not tend to retard in any way the bright future for the eastern end of Skagit county. I believe the flood control problem can be met with vigor by use of several of the proposed methods. I just as strongly believe that the Faber dam would defeat in the end the very purpose for which it was suggested--betterment of Skagit county as a whole.

Sincerely



Charles M. Dwelley, Editor



4015 20TH AVENUE WEST
FISHERMEN'S TERMINAL AT SALMON BAY
SEATTLE 99, WASHINGTON
ATWATER 2-0286

February 8, 1961

Colonel R. P. Young, District Engineer
Seattle District, Corps of Engineers
1519 South Alaskan Way
Seattle 4, Washington

Dear Colonel Young:

The Skagit River system is considered the most valuable tributary of the Puget Sound area in sustaining and supporting commercial sport fishing. The most important of the salmon from this river are the spring and summer run chinook salmon. The Skagit River supports reproduction of about one half of this total run entering Puget Sound. In addition, this river is highly important for the reproduction of pink, silver and chum salmon. (Evidence is being presented to support this statement).

The proposed plans of previous corps' studies for Flood Control on the Skagit River have been observed and then related to their effects on the fishery of the stream. The proposals of control for floods have been mainly the construction of dams. The locations proposed would have very serious and devastating effects on our fishery resources of the river and thus on the entire Puget Sound fishery. Nearly 65 percent of the spring chinook salmon spawning area is located on the main stem of the Skagit and in tributaries above the proposed Faber dam site. A multiple purpose dam at this location would nearly obliterate this run; as well as the silvers and other species utilizing the upstream spawning beds.



Exhibit - 20(a)

P 001162

Colonel R. P. Young, Dist. Engineer (2)
Seattle District, Corps of Engineers

February 8, 1961

Consideration has been made of the other dam site locations-- Cascade, Lower Sauk, Upper Sauk and Copper Creek. It is found that various proportions of spawning area loss would be involved to the extent of seriously endangering any continuing value of this resource to the area.

One method of flood control proposed has been the Avon bypass or overflow channel, downstream. This department wishes to emphasize the importance of this proposal as a preventative to lower stream flood damages and save the important reproduction or spawning areas upstream from being inundated and obliterated by dams and reservoirs. As a second recommendation it is urged that other dam sites be investigated higher on the head waters of the various tributaries of the Skagit system, which could be utilized to retain high runoff waters without loss of salmon spawning areas.

Very truly yours,



Milo Moore
Director

P 001163

SKAGIT RIVER BASIN - SALMON CATCH AND SPAWNING AREAS
1960 CATCH - AND SPAWNING SURVEY - SPRING - SUMMER CHINOOK

This past 1960 chinook salmon run was of a high order with a sport catch in the river of 5,884 fish, and a Skagit Bay sport catch of several thousand. The Skagit Bay commercial gill net, indian nets, and traps amounted to some 16,500 chinooks alone while over 4,000 were taken off West Beach that would have mainly entered the Skagit. The chinook spawning escapement was the highest that it has been in the last 10 years.

The following percentage distribution of chinook salmon was developed from the 1960 spawning ground surveys.

Percent chinook spawning above dam sites

Above Faber site (Sauk mouth on)	63.86 percent
Dalles (Baker to Sauk)	5.52 "
Cascade River	1.17 "
Lower Sauk (site below Suiattle)	9.42 "
Upper Sauk (at Whitechuck mouth)	2.64 "
Copper Creek (Bacon to Newhalem)	21.68 "
Percent below Faber site	37.23 "

Very important commercial and sport runs of pink, silver, and chum salmon occur in the Skagit system that constitute an important contribution to the entire Puget Sound salmon catches. These other salmon have a distribution similar to the chinook salmon in the river.

F.V.L. 20(4)

February 3, 1951

R. P. Young, Colonel
Corp. of Engineers
1519 South Alaska Way
Seattle 4, Washington

Dear Sir:

This report on Flooding of the Skagit River as it pertains to dairy farmers was prepared by the Skagit County Unit of the Washington State Dairymen's Federation. The Dairymen's Federation is a commodity group organized to work in the best interests of the dairy farmer.

Dairymen whose farms lie in areas subject to flooding of the Skagit River have real reason to fear a rampaging river. They know what has happened to them in past floods and are more fearful of what could happen to them in a really large flood at present, or sometime in the near future.

Dairy farming has changed considerably since the 1951 flood. Milk is held in tanks, herds have expanded, cows are milked in parlors or milking barns and practically all herds are housed in sheds. This means that herds that were housed in the barn in past floods would have to be moved, resulting in a major upset in production and management practices. Dairymen whose herds are trained for parlor milking would face a real problem if they were forced to move out and not be able to find similar facilities available to handle their herds.

Flooding to the individual dairyman* can be damaging and costly. During the '51 flood herds in the Nookachamps area had to be moved and some animals were reported drowned. In the Conway area herds were forced to move to higher ground. On Fir Island, one herd lost several animals from drowning. Another herd was caught in the fast rising water and was unable to be moved. It was three days before the water dropped low enough so the cows could be milked. The animals were in water all this time. Another Fir Island dairyman whose farm was directly in the flow of the flooding water from the Dry Slough break spent \$15,000. getting his land back in production. This amount does not include loss in milk production and other inconveniences as well as taxes required to repair dikes. Other farmers next to breaks in the dikes had similar experiences. The October 1955 flood at Lundeens on Fir Island, while not a large flood and did not force any herds to be moved, did interfere with the picking up of milk, lowered production and caused crop damage to at least two farms that did not have their potatoes and corn harvested. The crops were a total loss. A high river in the Spring in the Nookachamps area could cause damage to pastures and new seedings.

It is not the purpose of this report to show statistically and accurately the total damages that floods have caused to dairymen, but only to illustrate what dairymen have experienced and what their problems and hardships would be in any future floods. They are interested in flood control measures.

This report respectfully submitted by,

P 001165

James Wylie
JAMES WYLIE

SKAGIT COUNTY DAIRY FEDERATION

R. P. Young, Colonel
Corp. of Engineers

page 2

PRES: GERALD L. BATES,
ROUTE 1, SEDRO WOOLLEY

SEC.-TREAS. RUSSELL AXELSON
ROUTE 6, MOUNT VERNON

*DAIRYMEN REFERRED TO IN REPORT:

Claude Davis: Loss of cattle in '51 flood
Rt. 6, Mount Vernon

Russell Axelson: Cows stood in water 3 days
Rt. 6, Mount Vernon

Hubert Johnson: Five acres of potatoes lost in '55 flood
Rt. 3, Mount Vernon

Wylie Bros: Thirteen acres of potatoes and 20 acres of corn lost
Rt3, in '55 flood
Mount Vernon

Joseph Tellesbo: \$15,000. cost in reclaiming land from sand and debris
Rt. 6, Mount Vernon

We have a \$2,500,000.00 evaluation of which approximately 4,250,000.00 probably represents the evaluation in the flood danger area - Skagit County is assessed at 19% instead of 50% true value - actual value becomes by this formula

$$\frac{4,250,000.}{0.19} = 22,400,000.00$$

(1) Home damage ---- cleanup - disinfection - refinishing - reflooring (if hardwood floors) - settlements - furniture replacement - -
 500 homes @ \$2000.00 - - - - - \$1,000,000.00
 (Much of this work can of course be accomplished by the individual home owner - but the cost of reparation, nuisance & inconvenience is there nevertheless)

(2) Downtown Damages - - - - -

1,400,000 sq. ft. commercial gross floor areas in entire city doing a \$30,000,000.00/yr. retail sales approx. \$22.00/sq.ft./year or \$2.00/mo. Graham Co. surveyed our CBD to have 945,473 sq. ft. - total city 1,000,000 Assume 1,200,000 sq/ ft/ in flood plain area

A. Monthly loss of business only

Approx ... 1,200,000 sq.ft. x 2.00 2,400,000.00

B. Physical

Repairs to Flood Damage - clean-up, disinfection, refinishing, loss of inventory, loss of furnishings, display counters & furniture

Est. ~ 10% perhaps of actual

Commercial values \$22,400,000.00 \$2,240,000.00

Probably could be either too conservative or not sufficiently realistic depending on warning time - and duration of flood - BUT CLEAN-UP HERE BECOMES A PROBLEM NOT INDIVIDUALLY COPEd WITH BY OWNER - Needs help - call on

C. City of Mount Vernon Plant

1. Street Clean-up routine nuisance - - probably need some assistance will probably not all be given gratuitously - but negligible. Nuisance of Nuisance - No Costs

and reconditioning plants only - - - would probably run from an
est. \$25,000.00 min. to a \$1,000,000.00 of conceivable replacement
cost - - - - - \$25,000.00 min.

(b) Sewer Mains

Aside from the problem of disinfection - sewage being worn down -
the costs here could be as simple as no sewer line damage except
for silt and disinfection -

The silt problem alone - is not negligible - and we could perhaps
assume - 10 days per mile for 3 man crew, one truck & proper
sewer cleaning equipment -

Assume total of 10 miles of sewers in flood area -
10 miles x 10 days @ \$150.00/day - - - - - \$150,000.00 min.

This is minimum costs - assuming no pipe line reconstruction.

In summary, the probable realistic losses to Mount Vernon might be considered
as follows:

Private Property Damage - - - - -	\$3,600,000.00
Loss of Business - - - - -	\$2,400,000.00
Crash Program City Costs - - - - -	\$200,000.00

City of Mount Vernon
Dept. of Public Works
Herman E. Hansen, Supt.

City of Burlington

Burlington, Washington

February 7, 1961

District Engineer
U. S. Army Corps of Engineers
1519 South Alaskan Way
Seattle 4, Washington

Dear Sir:

In response to requests contained in your notice of January 6, 1961, concerning flood control in the Skagit River Basin, a study has been made relative to the City of Burlington. The study reveals that no appreciable permanent damage has been sustained by the City of Burlington since 1950, the period covered by your request. However, records reveal that the City sewage system has been temporarily incapacitated at times when the river height reached approximately 20 feet at Mount Vernon. At approximately this height the river closes the sewage outflow gates, and no sewage can escape until the river has receded. This situation stagnates sewage within the City and endangers health and property.

Predicted effects upon the populace, industry, business, real estate and utilities, in case the river is not contained within its banks, pose a much more serious problem, deserving a timely solution, and actual accomplishment of remedial action.

A relief map of Burlington shows approximately equal elevations throughout the City, therefore, the Skagit, when out of its banks in this area, would almost completely inundate the City, with resultant loss of, or serious detrimental effect upon, the following:

Municipal real property	\$ 225,000
Municipal pay roll(annual)	88,000
Streets	130,000
Sewer Systems	513,000
Equipment	50,000
Private real property	10,500,000
Personal property	1,700,000
Industry--covered by separate reports	
Water, gas, electric and telephone utilities covered by separate reports.	

P 001169

The industrial and business pay roll within the City has not been computed, however, it has been determined that business and industry in Burlington serves a substantial surrounding area. The magnitude of the retail establishments in Burlington per capita is comparable to that of larger cities in the area, a large regional draw of shoppers.

No specific recommendations can be made by the City of Burlington concerning the relative merits of the various methods of controlling floods in the Skagit River Basin.

Basin. However, it is believed that sufficient control, by dams, spillways or dikes should be provided to eliminate apprehension on the part of prospective industry, business or individuals, which might contemplate establishment in Burlington, or surrounding Basin area.

There appears to be a general attitude of willingness to provide local cooperation in flood control measures, particularly in the case of residents and business men who have acquainted themselves with potential dangers associated with extreme conditions, such as 50 year and 200 year floods. However, the magnitude of specific and detailed local financial support will not be known until the problem is officially submitted to the populace for their determination. The results of such determination will depend largely upon education of the Voters in this matter. The City Administration will actively participate in such a program.

Very truly yours,

Frank Screws
Frank Screws
City Supervisor

DIKE DISTRICT NO 15
SKAGIT COUNTY WASHINGTON

February 6, 1961

R. P. Young
Colonel, Corps of Engineers
District Engineer

Dear Sir:

This is a report of costs of repairs and maintenance. We have spent \$38,453.35 on our dikes from 1952 through 1959 rebuilding rock rip rap. Without state and county help we could not have done all of this work.

There is only 800 acres in our district. After the floods of 1949 and 1951 we had to levy 200 mills dike tax to pay our expenses from the floods.

We deeply feel something should be done to ease the flood threat on the Skagit river.

Commissioners

Dike District No. 15

Robert Reed

Colthur Summers
Feb Nelson

P 00117

BEFORE THE U. S. ARMY ENGINEERS CORPS

Skagit River Basin Hearing

February 5th, 1961

Mount Vernon, Washington

SUMMARY OF DRAINAGE DISTRICT #17 of SKAGIT COUNTY, WASHINGTON

Gentlemen:

Drainage District #17 is a municipal corporation of Skagit County, Washington organized under the laws of the State of Washington.

This district is a distinct organization from Skagit County and is governed by three elected commissioners.

The purpose for which the district was organized was to construct, maintain and operate ditches and drainage facilities in lower Skagit County easterly from and along the Skagit River and South of Mount Vernon, Washington.

The district encompasses approximately 4,680 acres of extremely fertile farm land and a portion of South Mount Vernon and Conway in the County. Various county roads cross from and run parallel with U. S. Highway 99 which crosses the district from Northerly to Southerly.

In the original construction Drainage District #17 had direct outlets into the South Fork of the Skagit River at Conway, Washington, and by gravity into the South Fork through the river dike by boxes and gates against high water and tides. The cost of drainage by this method was of course minimal.

Subsequently the river bottom became filled with sediment and it became impossible to drain in this fashion. Pumps were installed which while expensive, aided the water disposition. However, pumps within the range which could operate without confiscatory costs could only handle a portion of the water necessary. Lands suffered, crops were ruined, highways were flooded and even homes were flooded and the general economy of the district was endangered. Seeking escape the

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district was bonded to build the so called "Salt-water Ditch", with gates at the salt water end--which ditch extended southerly in the North portion of Stanwood Bay.

Relief in the district was immediate. No more yearly floodings(except breaks in from the river on one or two occasions) and no more pumping costs. The district land could be drained and crops produced commensurate with the fertile lands capacity to produce.

Gradually again silt and deposits from the Skagit and Snohomish rivers have invaded the drainage and capacity of the salt water outlet. The district again must assist the drainage with pumps and the continued expense of this operation and cleaning operations again has raised the district operating costs, is affecting the production of the lands in the district and harming the individual income and affecting the general economy.

Dredging the South Fork and permitting again gravity drainage at Conway, Washington would eliminate water and flooding. Dredging would also relieve the pressure of waters backing up from the salt water gates.

The Board feels that relief to the district would save the general economy of the district and estimated loss of from \$25,000.00 to \$50,000.00 per year due to reduced production, increased costs and would enhance the value of district property probably many times.

DRAINAGE DISTRICT NO. 17 of Skagit
County, Washington.

By

W. J. McCar-

Secretary