

# RED RIVER OF THE NORTH BASIN

DECEMBER 4, 1972

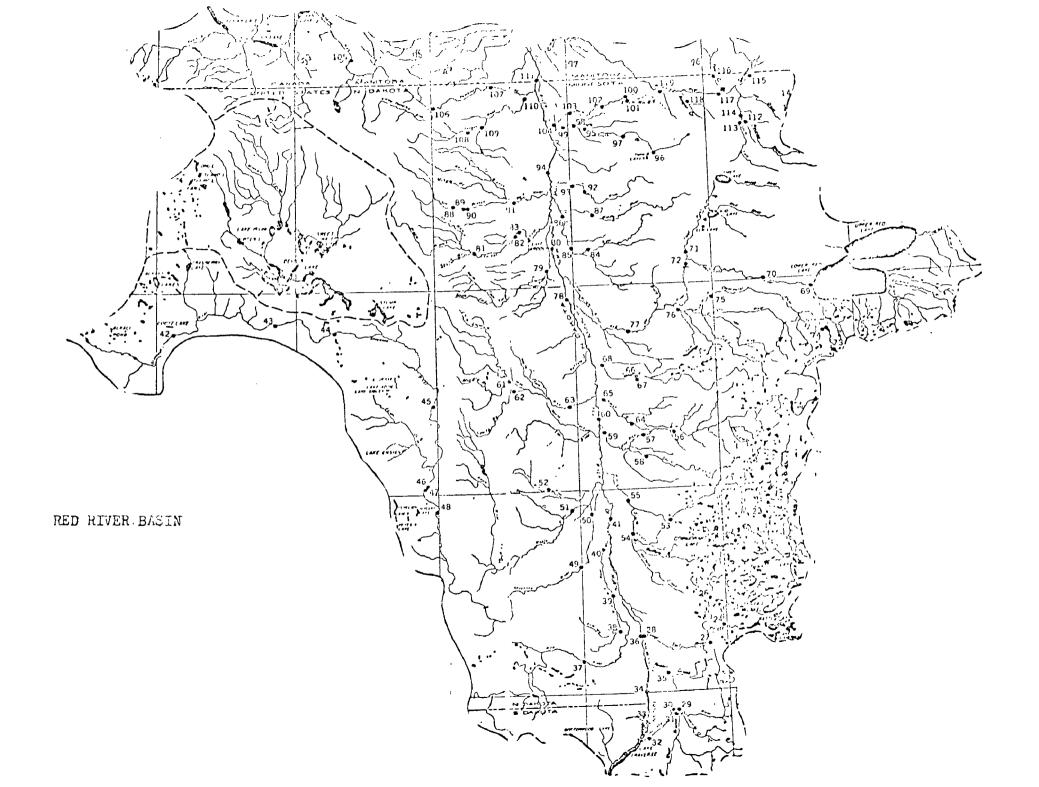


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SECTION A

Narrative



#### RED RIVER - FIGURE 9

### I. Priority Area Identification

The Red River of the North River Basin encompasses portions of the States of North Dakota, Iowa and Minnesota and the Dominion of Canada. The area of primary effort for Region VIII in this Accomplishment Plan falls entirely within the State of North Dakota. Just considering the mainstem of the Red River which borders Minnesota and North Dakota, and three major tributaries (Red Lake River in Minnesota, and the Sheyenne and Park Rivers in North Dakota), approximately 955 river miles are traversed. Seven hundred and eighty-two of these miles fall under North Dakota's jurisdiction. The entire basin covers approximately 38,000 square miles.

#### II. Problem Assessment

The Red River Basin involves three States, two EPA Regional Jurisdictions, and drains into Canada. Consequently, the problem includes institutional constraints and relations on an International, interstate, and inter-regional level. As a result, the effort is fragmented and the water pollution problem is not addressed with the full amount of resources that are available.

- a. Although the North Dakota population is relatively small, 247,000 people in 1970, the limited availability of quality water supplies, the general widespread nature of the pollution problem and the international aspects combine to make this an important priority area.
- b. Of the 782 river miles in North Dakota, 280 are estimated to be out of compliance with North Dakota's water quality standards some time during the water year.
- c. The major industrial pollution in this basin results from the operations of sugar beet mills.
- d. In 1965 an Enforcement Conference was convened in order to address the water quality problems in the Red River. The Conference made several recommendations regarding large municipal and industrial dischargers, including the four sugar beet mills. The recommendations of this Conference as they relate to North Dakota are reflected in this Basin Accomplishment Plan.

- e. The North Dakota standards and implementation schedule are adequate. However, there is a problem of differing standards at the Minnesota-North Dakota state line that must be resolved.
- f. All major waste sources are presently under a schedule of improvement and compliance so the main effort is directed toward seeing that the schedules are maintained. However, due to the diversity of wastes sources and the levels of nutrient loadings, full compliance with water quality standards is not assured.
- g. Water quality surveys and plant effluent and discharge point stream monitoring will be carried out to determine if additional nutrient removal by point sources is required. Otherwise, no additional treatment needs are identified at this time.

Another significant problem is the discharging of wastewater effluent under ice thus causing an oxygen depletion. In North Dakota, all the municipal systems except for Fargo, hold their effluent through the winter and discharge during the Spring and Fall months. Fargo is in the process of constructing a 580-acre lagoon which will provide storage of its effluent through the winter. American Crystal Sugar at Drayton is constructing a recycling unit whereby the majority of its effluent will not reach the stream system.

Because most dischargers release their wastes during Spring and Fall which are also the times of peak sugar beet processing, a large slug loading is experienced upon the river system at these times. Proposed surveys in this plan should provide the additional information needed to determine the stream effects of this practice and any necessary recommendations for remedies. Special problems may also come as a result of the low flows at reduced velocities that prevent the river from being adequately flushed, thus, nutrient balance and siltation may be more troublesome than in most other cases.

- h. The Basin covers part of three states, and the Dominion of Canada, thus there are some interstate and international relations questions to be considered.
- i. Since the Basin also cuts across two EPA regions, Regions V and VIII, and Region V has not designated the Red River Basin as a priority basin, special coordination needs to be developed to assure proper water quality management in the area.

### .II. Agency and/or Operational Objectives

It is EPA's objective to insure instream water quality standards are not violated. The Regional office is utilizing (1) North Dakota State's effluent requirements for municipal dischargers and (2) EPA/Industry commitments as criteria for reaching this objective. These criteria are:

Municipal WWTP 25 mg/l BOD<sub>5</sub> in effluent 30 mg/l TSS in effluent

Sugar Beet Industry  $BOD_5 = 5\#/Ton$  sliced beets processed Fecal Coliform = 75 x  $10^6/Ton$  slided beets processed

By FY 75, the  $BOD_5$  effluent requirements will be met by North Dakota. An additional reduction of 356# TSS will be needed in FY 76 in order to maintain compliance with the criterion. These conclusions apply to North Dakota's portion of the pollution loading since no effluent criteria have been established for industries in Minnesota.

Projected reductions to be realized by FY 73 and 74 are:

	FY 73	FY 74
BOD <sub>5</sub>	60794 #/Day	65248 #/Day
TSS	13420 #/Day	58456 #/Day

The DFIC Survey to be completed June 73 should reveal whether or not recent improvements to several wastewater treatment plants in the basin have resulted in water quality improvements.

### IV. Approach

The objectives outlined above will be achieved through the following program elements and their listed activities:

- 1. Refuse Act Permits (3B2124) obtain commitments\* to reduce pollution loadings from several key industries.
- 2. Municipal Waste Treatment Construction Grants (288164) help finance the construction of several new wastewater treatment plants and wastewater treatment plant improvements which will increase plant efficiency or solve some other water quality problem.
- 3. Water Quality Planning (2B3149) approve a comprehensive water quality management plan which will provide guidance for effective management of the water quality.
- 4. 0&M, Water Quality Monitoring, Water Pollution Source Surveillance and Water Quality Enforcement (2B8163), (2B2147), (2B2148), (3B1123) assess impact of improvements and carry out implementation schedules.

<sup>\*</sup>These commitment actions will be immediately converted to permit actions under the new legislation as soon as guidelines are available.

 Environmental Impact Statements Review (2B6117) - assure that responsibilities assigned to EPA via the NEPA are observed and environmental quality maintained and protected. SECTION B

Basin Load Summary

2750\*

9730

2750

9730

BODS

TSS

\*To be negotiated .

with industry.

Increases in pollution discharges expected:

	Ye	ear of Acti	ual Increas	se
	FY 73	FY 74	FY 75	FY 76
BOD <sub>5</sub> TSS	1bs/day 136 570	1bs/day 272 1140	1bs/day 408 1710	1bs/day. 544 2280

8. Total reductions to be obtained--sum of 5 and 6 above:

	Y	<u>ear of Actu</u>	ual Reducti	i on
	FY 73	FY 74	FY 75	FY 76
BOJ <sub>5</sub> TSS	1bs/day 60794 13420	1bs/day 65248 58456	lbs/day 67998 68186	1bs/day 67998 68186

9. Total reductions required--sum of 4 and 7 above:

	Y	ear of Actu	al Reducti	on
	FY 73	<u>FY 74</u>	FY 75	<u>FY 76</u>
BOD5 TSS	1bs/day 67946 65245	1bs/day 68082 65815	1bs/day 68218 66380	1bs/day 68354 66950

10. Year in which minimum acceptable water quality levels are to be achieved-compare 8 and 9 above:

TSS - FY 75 BOD5 - need additional commitment of 356# during FY 76 (To be determined prior to FY 76).

11. If figures for items 2 through 7 above are not available, please provide estimate of when they will become available through monitoring and other activities:

Are items 3, 5, and 6 above derived from detailed discharger inventories? The best available.

12. Key pollutants, if any, for which a weight or other quantity measure is not appropriate:

(Note special problems and comments).

Figure 10 - Continued

# SECTION C

1. Typ		Plan Element	2. Program	Sub-Element	Title Regional		1	3. Sub-Elemen 571214		4. Sheet lio.
b.□	]Part	. Sub-Elem.	5. Geograph	ical Area Ti	Red River	of the N	lorth	6. Geo. Area	Code	7.Priority
2.Code	9. No -	10SchedDate of Comp.	11.		FLANN	ED ACCOMPI	LISHMENT	<u> </u>		
777	1	Nov. 72	Meet with	Regional A	Administrator	of Regi	ion V t	o develop a	workin	g
44,			agreement	between t	he two Region	s to acc	complis	h a total b	asin W()	M
777			strategy.							
777										
									,	
177						· · · · · · · · · · · · · · · · · · ·				
111				,		<del></del>				
11/		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	المنظمة والمنظمة والمنظمة المنظمة المن	<del>*************************************</del>	<del> </del>			
4						<del></del>	<del>, , , , , , , , , , , , , , , , , , , </del>	<del></del>		
14				<del></del>		· · · · · · · · · · · · · · · · · · ·	<del></del>			
44		<del></del>		···		· <del></del>	<del> </del>	<u> </u>	<del> </del>	
7-7-7										, , , , , , , , , , , , , , , , , , ,
447				<del></del>						, <u> </u>
777										
12.	FY 1	973	13. FY 19		14. Prepared by		5. Revie	wed by & Date	16.Appr	oved forRPIO
.016	1	•	8.	ъ.	9-22-72	TA				

		Plan Element	2. Program	Sub-Element	Title	3. Sub-Element No. 2B3149		et No.
	]Part	t. Sub- <b>Ele</b> m. Area	5. Geograph	nical Area T	itle	6. Geo. Area Code 0701	7.Priority	
3.Code	9. No	10SchedDate of Comp.	11.		PLANNED ACCOMPLISHE	ENTS		
777.	1	June 76	Bring about	·the integra	tion of North Dakota's and M	innesota's Water Quality	<del></del>	
777	1		Management	Plan through	inter-agency cooperation.		5	6
777	2	June 76	Review and	monitor deve	lopment of the Water Quality	Management Plan to ful-		
///			fill the re	quirements o	f 40CFR 35.		. 4	.8
	3	June 76	Assist Nort	h Dakota in	the basin planning activities	s for the Red River of		
			the North.				.5_	.6
	4	July 73	Review and	approve Wate	r Quality Management Plan for			
111			including Fa					.6
	5	May 74		<del></del>	gislation upon Water Quality			
111					gement Grants Program.	Ţ		.50
111	6	Sep 73			, N.D., Minnesota and Fargo-M			
111		<del> </del>	areawide pla	<del></del>				. 7
11	7	Oct 73			the North using a Simplified	•		
111	8				FIC's proposed Water Quality			
111	4	000 / 0						40
444			neu kiver ar	io recent wa	stewater treatment plant impr			
12.	FY	1973	13. FY 1	974	14. Prepared by & Date 15. R	evisued by & Date 16.Au	skonsg	for RPIO
a <b>.</b>		Ъ.	a.	b.	TA 9-25-72			-

1. Typ		Plan Element	2. Program Sub-Element Ti	I <b>tle</b> Water Quality Planning	3. Sub-Element No. 2B3149	4.Shee	et No.
	JGeo.	Sub-Elem.	5. Geographical Area Titl		6. Geo. Area Code 0701	7.Pri	ority
3.Code	9. No .	10SchedDate of Comp.	11.	PLANNED ACCOMPLISHMEN	TS		
777,	9	June 76	Review and coordinate Sta	te Program Plans with Water Q	uality Management		
777,			plans and construction gra	ants program.		5	.5
	10		Review and process seven of their compliance with water	construction grant applications represent the construction of the	ns to determine	.6	1.3
777		Feb. 73	a. Amenia WWTP	·			
777		June 75	b. Fargo Interceptor				
777		June 75	c. Grafton Interceptor				
777		June 75	d. Grand Forks Intercepto	or			
777		June 75	e. Valley City Intercepto	or		<del>- 14 - 1 - 1 - 1</del> - 1	
777		June 75	f. Wahpeton Interceptor			<del></del>	
777		June 75	g. West Fargo Interceptor				
777	11	June 76	Participate in seven preag	pplication meetings (See Tabl	e 3).	.2	6
777	12	June 76	Assess environmental impa	act of BOR's Garrison Diversi	on Project.	2	4
777	13		Evaluate the water qualit	cy effects of 4 proposed COE	projects within the Rec	<u> </u>	
777,			River Basin.			00	0
<i>////</i>		June 76	a. Kindred Reservoir; b.	Iwinn Valley: c. Park River	; and d. Crookston Rese	rvoirs	<b>_</b>
12.	FY I	l 1973		4. Prepared by & Date 15. Rev			
		b • ′	a. b.	TA 9-25-72		هر مشمد کا کا در کا	<del></del>

1. Type of Plan a. Sub-Element	2. Program Sub-Element Title Water Quality Planning	3. Sub-Element No. 4. Sheet No. 2B3149 3 of 3
b. Part. Sub-Elem.	5. Geographical Area Title Red River of the North	6. Geo. Area Code 7.Priority
.Code 9.No of Comp.	11. PLANNED ACCOMPLISHMEN	rs
14 JUN 76	Influence N.D. and following municipalities to provide	e nutrient removal, if such a
	need is determined.	erinne kan er het men der men den den den kompeten av de fille begrecken de de fille betree fille betree fille
	a. Fargo, N.D WWTP 0 .3	
	b. Grafton, N.D WWTP Imp. 0 .3	- <del> </del>
	c. Wahpeton, N.D WWTP Imp. 0 .0	
	d. Valley City, N.D WWTP Imp. 0 0	
15 JUN 73	Encourage State and municipalities to expedite plant	construction .05 .2
12 1072	12 77/ 107/	and he f Data 116 Amend for DDI
12. FY 1973	13. FY 1974   14. Prepared by & Date   15. Revi-	ewed by & Date 16.Approved forRPI

1. Typ		Plan Element	MUNICIPAL WASTE TREAT  2. Program Sub-Element TitleMENT CONSTRUCTION GRANTS  3. Sub-Element No. 4. Sheet No. 288162
ь	Part	. Sub-Elem.	5. Geographical Area Title Red River of the North 0701 7.Priority
3.Code	9. No .	10SchedDate of Comp.	11. PLANNED ACCOMPLISHMENTS
777	1	**************************************	Conduct preapplication meetings for 7 projects listed on 1 and 5 year needs list
		•	(See Table 3)
		Feb 73	a. Amenia WWTP (1 year needs list) .2 0
		June 75	b. Fargo Interceptor (5 year needs list)
		June 75	•c. Grafton Interceptor (5 year needs list)
		June 75	d. Grand Forks Interceptor (5 year needs list)
		June 75	e. Valley City Interceptor (5 year needs list)
777		June 75	f. West Fargo Interceptor (5 year needs list)
		June 75	g. Grafton Interceptor (5 year needs list) (3 of 6)
777	2	· · · · · · · · · · · · · · · · · · ·	Complete the processing of construction grant applications and grant awards for 13
			projects (See Table 3)
		Aug 72	a. Valley City WWTP Imp3 0
		June 73	b. Abercrombie WWTP 1 0
777		Aug 73	c. Grafton WWTP Imp. 1.2 1.2
		Aug 73	d. Wahpeton WWTP Imp
12.	FY 1	973	13. FY 1974 14. Prepared by & Date 15. Reviewed by & Date 16.Approved forRPIC
ı.		b.'	a. b.
			Planned Accomplishments

b. Part. Sub-Elem. Geo. Area  3. Code 9, No. of Comp. 11. PLANNED ACCOMPLISHMENTS  Sep 73 e. Fargo WMTP .1 1.0  Oct 73 f. Fargo Water Filtration .1 1.2  Jun 76 h. Fargo Interceptor  Jun 76 i. Grafton Interceptor  Jun 76 k. Valley City Interceptor  Jun 76 k. Valley City Interceptor  Jun 76 m. West Fargo Intercep		of Plan Sub-Eleme	ent	2. Program	Sub-Element	Mur Title Co	nicipal k Instructi	laste T on Gra	reatment nts	3. S	ub-Elemen 2B8162	t No.	4.Sheet No. 2 Of 3
Sep 73 e. Fargo WWTP 1 1.0  Oct 73 f. Fargo Water Filtration 1 1.2  Oct 73 g. Amenia WWTP 1 1.2  Jun 76 h. Fargo Interceptor 0 3.0  Jun 76 i. Grafton Interceptor  Jun 76 k. Valley City Interceptor  Jun 76 l. Wahpeton Interceptor  Jun 76 m. West Fargo Interceptor  3 Feb 74 Work with State to improve the quality and frequency of inspections and  O&M surveys .3 .3  4 Oct 73 Review DFIC's report that results from their survey of several WWTP's along the main stem of the Red River 0 .25	b	Part. Sul Geo. Area	o-Elem.	5. Geograp	hical Area T	itle Red	l River o	of the	North	6. G		Code	7.Priority
Oct 73	3.Code	9. No of Co	nedDate	11.		·	PLANNED	ACCOM	PLISHMEN	TS			
Oct 73 g. Amenia WWTP 1 1.2  Jun 76 h. Fargo Interceptor 0 3.0  Jun 76 j. Grafton Interceptor  Jun 76 k. Valley City Interceptor  Jun 76 l. Wahpeton Interceptor  Jun 76 m. West Fargo Interceptor  3 Feb 74 Work with State to improve the quality and frequency of inspections and  0&M surveys .3 .3  4 Oct 73 Review DFIC's report that results from their survey of several WWTP's along the main stem of the Red River 0 .25	7//	Se	ep 73	e. Far	rgo WWTP		.1	1.0				<del>- ,</del>	
Jun 76  h. Fargo Interceptor  Jun 76  i. Grafton Interceptor  Jun 76  Mest Fargo Interceptor  Jun 76  Mork with State to improve the quality and frequency of inspections and  O&M surveys  A Oct 73  Review DFIC's report that results from their survey of several WWTP's along the  main stem of the Red River  O .25		00	t 73	f. Far	rgo Water Fi	ltration	.1	1.2					
Jun 76  Jun 76  Jun 76  Jun 76  Jun 76  Jun 76  L. Wahpeton Interceptor  Jun 76  Jun 76  Mork with State to improve the quality and frequency of inspections and  O&M surveys  A Oct 73  Review DFIC's report that results from their survey of several WWTP's along the main stem of the Red River  O .25		0	t 73	g. Ame	enia WWTP		1	1.2					
Jun 76  Jun 76  Jun 76  Jun 76  Jun 76  Lead Forks Interceptor  Jun 76  Jun 76  Mahpeton Interceptor  Jun 76  Mork with State to improve the quality and frequency of inspections and  O&M surveys  A Oct 73  Review DFIC's report that results from their survey of several WWTP's along the  main stem of the Red River  O .25		Jı	ın 76	h. Fai	rgo Intercep	tor	0						
Jun 76 k. Valley City Interceptor  Jun 76 l. Wahpeton Interceptor  Jun 76 m. West Fargo Interceptor  3 Feb 74 Work with State to improve the quality and frequency of inspections and  0&M surveys .3 .3  4 Oct 73 Review DFIC's report that results from their survey of several WWTP's along the  main stem of the Red River 0 .25	7777	Jı	ın 76	i. Gra	afton Interc	eptor	·····	(3 0	T b)			·····	
Jun 76  Jun 76  M. West Fargo Interceptor  3 Feb 74  Work with State to improve the quality and frequency of inspections and  0&M surveys  3 Review DFIC's report that results from their survey of several WWTP's along the  main stem of the Red River  0 .25	777	Jı	un 76	j. Gr	and Forks In	terceptor	· · · · · · · · · · · · · · · · · · ·			<u></u>		<del></del>	
Jun 76 m. West Fargo Interceptor  3 Feb 74 Work with State to improve the quality and frequency of inspections and  0&M surveys .3 .3  4 Oct 73 Review DFIC's report that results from their survey of several WWTP's along the  main stem of the Red River 0 .25		Jı	<u>ın 76</u>	k. Va	lley City In	terceptor		\$15.5.T.					
3 Feb 74 Work with State to improve the quality and frequency of inspections and 0&M surveys .3 .3 4 Oct 73 Review DFIC's report that results from their survey of several WWTP's along the main stem of the Red River 0 .25			ın 76	1. Wal	npeton Inter	ceptor							
0&M surveys .3 .3  4 Oct 73 Review DFIC's report that results from their survey of several WWTP's along the main stem of the Red River 0 .25	777		ın 76	m. We	st Fargo Int	erceptor							
4 Oct 73 Review DFIC's report that results from their survey of several WWTP's along the main stem of the Red River 0.25	7777	3 F6	еь 74	Work w	ith State to	improve t	he quali	ity and	frequen	cy of	inspectio	ons and	
main stem of the Red River 0 .25				0&M su	rveys						.3 .3		
		4 00	t 73	Review	DFIC's repo	rt that re	sults fr	om the	ir surve	y of	everal W	/TP's alo	ong the
5 Jun 76 Use State program plans to coordinate administration of construction grants			···	main s	tem of the R	ed River		. <u></u>			0 .2!	5	
		5 Ju	ın 76	Use St	ate program	plans to c	coordinat	e admi	nistrati	on of	construc	tion gra	nts
1.25 1.25											.25 1	.25	
12. FY 1973 13. FY 1974 14. Prepared by & Date 15. Reviewed by & Date 16.Approved forRPIO	12.	FY 1973	<del></del>	13. FY 1	L974	14. Prepa	ared by 8	& Date	15. Revi	ewed b	y & Date	16.Appr	oved forRPIO
b. a. b.	1.	b .		a.	b.								ארש שנע שנע

1. Typ		Plan -Eleme <b>nt</b>	Municipal Waste Treatment  2. Program Sub-Element Title (Construction Grants)	3.	Sub-Eleme 2B8162	nt No.	4. Sheet 30.
b.[_	_	Sub-Elem.	5. Geographical Area Title Red River of the North	6.	Geo. Area 0701	Code	7.Priority
3.Code	9. No	10SchedDate of Comp.	11. PLANNED ACCOMPLISHMENT	ΓS			
	6	June 76	Update 1 and 5 year needs list	•	.3	.3	
	7	•	Influence ND and the following municipalities to pr	rovio	de nutrier	nt remova	l if such
			a need is determined.				
		June 76	a. Fargo, North Dakota - WWTP				
	1	June 76	b. Grafton, North Dakota - WWTP Imp			* <del>-</del>	
777		June 76	c. Wahpeton, North Dakota - WWTP Imp				
		June 76	d. Valley City, North Dakota - WWTP Imp			•	
777	8		Encourage state and municipalities to expedite plar	nt	.05	0	
			construction.		·	,	
777							
12.	FY	1973	13. FY 1974   14. Prepared by & Date 15. Review	ewed	by & Date	16.App	roved for RPIO
a50		b.	a90 b.				

# PLANNED ACCOMPL. AMENTS SCHEDULE

1. Typ		Plan Element	2. Program	Sub-Element	Title	REGIONA	L MANAGE	MENT	3. Su	ib-Elemen 571214	t No.	4.51	neet No.
b	lGeo.	Sub-Elem.	5. Geograp	hical Area Ti	L <b>tle</b> Re	d River	of the	North	6. Ge	o. Area 070		7.Pr	riority
3.Code	9. No .	10SchedDate of Comp.	11.	····		PLANN	ED ACCOM	PLISHMEN"	TS				
	1	Nov 72	Encour	age national	funding	of an e	nvironme	ental fil	m to b	e used	<del></del>		
		*	in Reg	ion VIII							.25	0	
	2	June 76	Distri	bute to the m	ews medi	a items	on envi	ironmenta	lissu	es relat	ing		
			to the	Red River Ba	sin						5	5	
				<del></del>			. <u></u>	•					
	3	June 76	Determi	ne whether 7	constru	ction g	rant pro	jects sa	tisfy 1	the	<del> </del>		
			Equal 8	Employment Ac	t requir	ements					.25	. 75	
				<del></del>							·		,, <u>, , , , , , , , , , , , , , , , , , </u>
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		-							·				
				· · · · · · · · · · · · · · · · · · ·								<u>-</u>	
12.	FY ]	1973	13. FY 1	974	14. Pres	pared by	& Date	15. Revi	ewed b	y & Date	16.App	roved	forRPIO
a08		b	a. 1.0	ъ.								20,20 to 70m	

1. Type of	Plan -Element	2. Pro	gram Sub-Elemen	t Title Constru	ction Grant	s Adm.	3. Sub-El 2B8	lement No.	4. Sheet No.
b. Par	t. Sub-Elem. Area	5. Geo	graphical Area	Title Red Ri	ver of the	North		Area Code 701	· 7.Priority
3.Code 9.No	110SchadDate	Pro	cess seven new	applications a	nd complete	seven o	thers 's		
1 1	Aug 73	a.	Valley City WW	TP Imp			.2	.1	····
	Oct 73	b.	Park River Int	erceptor			.1	.0	
	Apr 74	с.	Fargo WWTR				.3	.1	
	Apr 74	d.	Fargo Water Tr	eatment	OLD_		.3	.1	
	May 74	е.	Abercrombie WW	TP			.3	.1	
	May 74	f.	Wahpeton WWTP	Imp.			.3	.1	
	Jun 74	g.	Grafton WWTP I	mp.			.3	.1	
	May 74	h.	Amenia WWTP			- <u></u>	.2	.1	<del></del>
////	Jun 76	i	Fargo Intercep	tor			.0	5	
	Jun 76	i	Grafton Interc	eptor			.0	5	
	June 76	k	Grand Forks In	terceptor	> NEW		0	5	
	Jun 76	]	Valley City In	terceptor			0	1	
	Jun 76	m.	Wahpeton Inter	ceptor	,		0	.2	
	June 76	n.	W. West Fargo	Interceptor			0	.5	<del>., </del>
			· · · · · · · · · · · · · · · · · · ·					·····	
12. FY	1.973	13.	FY 1974	14. Prepared	by & Date	15. Revie	ewed by &	Date 16.Apr	proved forRPIC
. 16	b.	a2	5 <b>b.</b>						

1. Typ		Plan Element	2. Pr	ogram	Sub-Ele	men <b>t</b> '	Title	0	& M		TE E		3. S	ub-E	legen	t No.	4.8	heet No.
ъ	Part	. Sub-Elem.	5. Ge	ograph	ical Ar	ea Ti	<b>tle</b> Re	d Rive	er of	the N	orth		6. G	<b>eo</b> 070	Area 1	Code	· 7.E	riority
3.Code	9. No .	10SchedDate of Comp.	11.			-		PL	ANNED	ACCOM	PLIS	HME	NTS					<u> </u>
	1		Con	duct 1	4 0 & M	1 insp	ection	s of o	comple	ted o	r to	be	comple	ted	WWTP	(See	Table	3)
		Aug 73	a.	Valle	y City	WWTP	Improv	ements	5		.0		.30					
		Apr. 74	b.	Fargo	WWTP						0		.30				···	
777,		Apr. 74	c.	Fargo	Water	Filtr	ation				0		.30				.=\	
		May 74	d.	Amen.i	a WWTP					·	0		.30					
		May 74	е.	Aberc	rombie	WWIP.					0_		30		· · · · · · · · · · · · · · · · · · ·			
	_	May 74	f.	Wahpe	ton WWT	P Imp	roveme	nts			0		.30			•		
		Jun 74	g.	Graft	on WWTP	Impr	ovemen	ts			0		.30					
		Oct 74	h.	Park	River I	interc	eptor	Ext.	Force	Main	& L	ift	Statio	n		.30	0	
		Jun 76	i.	Fargo	Interc	eptor		H	11	,  11	11	H	П					
		Jun 76	j.	Graft	on Inte	rcept	or	И	ti	11	н	И	ŧI					
		Jun 76	k.	Grand	Forks	Inter	ceptor	11	н	0	11	н	п					
		Jun 76	1.	Valle	y City	Inter	ceptor	11	11	11	II	il	i	.0 (3	Of 6)	1.00		
		Jun 76	m.	Wahpe	ton Int	ercep	tor	П	It	11	11	11	U					
		Jun 76	n	West	Fargo I	nterc	eptor	н	н	11	11	11	П			•		
12.	FY I	L 1973	13.	FY 19	74		14. Pre	pared	by &	Date	15.	Rev	iewed b	у &	Date	16.Ar	oproved	forRPIO
1.		b.	a.		b.													

i. Typ	e of ]Sub-	Plan Element	2. Progra	m Sub-Element	Title	0 & M		3. SubaF16	ment No.	4.Sheet No.
Ъ.[	]Part ]Geo.	. Sub-Elem.		phical Area T	itle <sub>Red</sub>	River of the	North	6. Geo. At 070	ea Code	7.Priority
.Code	9. No .	10SchedDate of Comp.	11.			PLANNED ACCOM		S		
	2	Feb 74	Work w	ith State to	improve O	& M and sampl			,6	.2
		•								
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12.	FY 1	973	13. FY	1974	14. Prep	ared by & Date	15. Revie	wed by & D	ate 16.App	roved forRPI
.08	3	b.	a25	ъ.	-					

1. Typ		Plan -Element	2. Progr	am Sub-Elom	ent TitleW	ater Polluti	on Sour	ce Surv.	3. Sub-E 2B2	lemen 148	t No.	4. Sheet No
b	Pari	Sub-Elem.	5. Geogr			d River of t			6. Ge870			- 7.Priority
.Code	9. 80	10SchedDate	JJ			PLANNED	•	•			······································	
		{	·					<del> </del>				
	1		Conduct	monitoring	study of	4 wastewater	treatm	ent plan	ts if ne	eeded		
77			to deter	mine the in	mpacts of	improvements	upon w	ater qua	lity.			
777		May 74	a. Fa	rgo WWTP						0	.25	
		Oct 75	b. Fa	rgo Water 1	reatment	·		·		0	0	
		Oct 74	c. Gr	afton WWTP	Imp					0	0	
		Oct 74	d. Wa	hpeton WWTF	Imp.					0	0	
	2	June 76	Obtain w	ater qualit	y data to	be imputted	into ST	ORET.		.75	.75	
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777			,									
<u> </u>	FY	1973	13. FY	1974	14. Pr	epaird by &	Date 15	. Review	ed by &	Date	16.Αpp1	roved forRPI
. 0E		b.	a03	ъ.	TA	9-22-72						

1. Type of Plan	2. Program Sub-Element	: Title Refuse Act Permits	3. Sub-Element 3B2 124	No. 4.St	reet No.
a. Sub-Element b. Part. Sub-Elem.			6. Geo. Area C		iority
c. Geo. Area		itleRed River of the North	0701		· · · · · · ·
.Code 9.No of Comp.	11.	PLANNED ACCOMPLISHMEN	VTS	~	
1.1	USDI Valley City Na	tional Fish Hatchery			
May 73	a. Obtain com	mittment to minimize pollu	tion load	. 4	0
			······································		
2	Pillsbury-Grand For	·ks			
July 74	a. Meet with	company & State to develop	DS stds.	<u> </u>	.0
Dec. 74	hhevelop ef	fluent concentrations for	plant through	<del></del>	÷
	RAPP			0	0
Feb 75	c. Obtain a c	ommittment letter			
	,				<del></del>
3	Minnkota Power Coop	- Grand Forks			
March 73	a. Continue m	eetings with company to de	velop effluen	ţ	
	standards			1.0	0
May 73	b. Obtain com	mittment letter		.4	0
June 76					
77.//	,				<u> </u>
12. FY 1973	13. FY 1974	14. Prepared by & Date 15. Rev	iewed by & Date	16.Approved	torRPIO
· See lastbpage	a. b.	IA 9/21/72			

# PLANNED ACCOMPLISHMENTS SCHEDULE

		Plan Element	2. Prog	ram Sub-Eleme	ent TitleRefu	ise Act Pērm	its	3. Sub-E 3B21	lement 1 24	vo.	4.Sheet No. 2 of 4
		. Sub-Elem. Area	5. Geog	raphical Area	Title Red F	River of Nor	th	6. Geo		ie ·	7.Priority
Code	9. No .	10SchedDate of Comp.	11.		•	FLANNED ACCOR	•	rs			
7/	,4		Otter 1	[ail Power	Co Wahp	eton					•
77		June 73	a.	Develop ef	fluent cri	teria throu	gh RAPP	· ;		. 4	. 0
		Sept 73	ь.	Obtain com	mittment 1	etter		-		0	.6 .
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7	5		USDI Ba	ldhill Dam	Nat'l Fis	h Hatchery	- Valley	y City			
		May 73				o minimize			•		4 0
1		,					<del></del>			· ·	
						<del></del>					•
1	. 6		America	n Ćrystal	Sugar, Dray	ton			•		
11		March 73				resolve co	nflict o	over BOD	s std		90 n
14		June 73				ttment lett				•	30 0
1						<u> </u>	<u> </u>	•			•
17	1									,	•
77											
77			-				7		D-4 10	·	und forDDT
<u>2.                                    </u>	FY :			Y 1974	· · · · · · · · · · · · · · · · · ·	ired by & Date	15. Rev1	ewed by &	vate 1	o.Appro	· vea rocket
	260	blast page.	<del>iumanana</del> I a •	SERVICE PROPERTY.	TN-21	ccomplishment	A CONTRACTOR OF THE PARTY OF TH			INCRES CONTRACTOR	A STANLING SELECT

# PLANNED ACCOMPLISHMENTS SCHEDULE

	e of ]Sub-	Plan Element	2. Program	Sub-Element	Title Refuse	Act Permit	S	3. Sub-Elemen 3B2124	t No.	Shee 3 of	t No.
b.[	JGco.	. Sub-Elem.	5. Geograp	hical Area Ti	itle Red Riv	er of the	North	6. Geo. Area (	Code · 7		rity
3.Code	9. No -	10SchedDate of Comp.	11.	·	I'LA	NNED ACCOM	PLISHMENT	rs			
777	-7		Armour Fo	od - West Fa	rgo	·					
		Feb 73	a. Negot	iate with co	mpany to have	them use	the city	sewer	•	90	0
777		June 73	b. Obtai	n commitment	letter				•	20	0
						<del></del>				`	-
	8						<del></del>				
		Jan 73	a. Conti	nue negotiat	ions with com	pany to de	fine effl	luent criteria	•	4	0
		Mar 73	b. Obtai	n commitment	letter					)	. 60
777											,
	.9	Jun 73	Review th	e water qual	ity managemen	t plan for	Red Rive	er Basin and			
			Fargo-Moo	rhead SMSA	ı					.4	0
	10	June 75	Establish	a joint mon	itoring syste	m with Reg	ion V to	assess impacts		<del></del>	
1,47	<del></del>		of RAPP a	ctivities in	Minnesota po	rtion of R	ed River	Basin. Continu	ie program	0	5.0
777	11		American	Crystal Suga	r, Moorhead	<del> </del>				-	
17/7		May 73	a. Meet	with Region	V, Minnesota	and indust	ry to agr	ree upon			<del></del>
11/1				ent limitati						1.0	0
7777											
12.	FY 1	973	13. FY 1	974	14. Prepared	by & Date	15. Revie	ewed by & Date	16.Approv	ed fo	rRPIO
1.	Se	blast page.	۵.	b.	Planned Accum					120 pm = 100	,, , , , , , , , , , , , , , , , , , ,

	e of Sub-	Plan Element	2. Program	Sub-Element	: <b>Title</b> Refuse Act Permits	3. Sub-Element No. 3B2124	⊬.si. 4	est No.
ь.[	Part	. Sub-Elem. Area	5. Geograp	hical Area T	Citle Red River of the North	6. Geo. Area Code 0701	7.P=	iority
Code	9. No .	10SchedDate of Comp.	11.		PLANNED ACCOMPLISHM	ENTS		
77,	11	July 74	b. Obta	in commitmen	t letter (Work with Region V)		l_	0
77,	12		American	Crystal Sug	ar, E. Grand Forks			
		May 73	a. Meet	with Region	V, Minnesota, and industry to	agree upon effluent		
			limit	ations			1.0	0
		July 74	b. Obtai	n commitmen	t letter (Work with Region V)		. 1	0
	13				ar, Crookston			
		May 73			V, Minnesota, and industry to	agree upon effluent		
				ations			1.0	0
		July 74	b. Obtai	n commitment	t letter (Work with Region V)		1	0_
77		June 75	c. Monit	or stream ar	nd effluent to detect pollution	n levels	0	00
	14	Sept 73					2.0	1.0
	15	June 76						1.6
	16	June 76	Data Proc	essing of Pe	ermits		1.0	2.2
11	1							
11	1			<del></del>				
2.	Fv	1973	13. FY	1974	14. Prepared by S Date 15. Re	eviewed by & Date line	poroved	forRP
<u></u>	0	b	a. 1.0	b.	T.A. 9-25-72			

L. Type of	Plan Element	2. Program	Sub-Element	: Title Environmental	Impact	3. Sub-Elemen 2B6117	t No. 4	Sheet No
b. Part	. Sub-Elem. Area	5. Geograp	hical Area 1	Sitle Red River of the	North	6. Geo. Area 0701	Code 7	.Priority
Code 9.No.	10SchedDate of Comp.	11.		PLANNED AC	COMPLISHME	NTS		
1	JUN 73	Review cor	itents of Wa	ter Quality Managemen			n .3	.3
		and Fargo-	Moorhead SMS	SA				
2	JUN 76	Evaluate e	nvironmenta	l assessment for the	vater quali	ty management p	lans, Red	
		River Basi	n and Fargo-	-Moorehead SMSA & 7 co	nstruction	grant applicat	ions 1.	
		a. Amenia	. WWTP		<del></del>			
		b. Fargo	Interceptor					
		c. Grafto	n Intercepto	or				_
		d. Grand	Forks Interc	eptor				
		e. Valley	City Interc	eptor			·	
		f. Wahpet	on Intercept	or				
		g. West F	argo Interce	ptor				
3	JUN 76	Coordinate	with Bureau	of Reclamation in th	e developm	ent of the EIS	.3	_,3
	·	for the Ga	rrison Reser	voir Water Project.				
2. FY 1	973	13. FY 1	.974	14. Prepared by & Da	te 15. Rev	iewed by & Date	16.Approve	ed forRP
· /	b • '	a11	b.	TA 9-25-72				

### PLANNED ACCOMPL IMENTS SCHEDULE

1. Typ		Plan -Element	2. Progra	m Sub-Elemen	t Title Water Quality Si	tandards	3. Sub-Elemen 2B1143	t No. 4	.Sheet No.
d 	JGco.	Sub-Elem.		phical Area '	Title Red River of the	e North	6. Geo. Area 0701	Code · 7	Priority
Code	9. No .	10SchedDate of Comp.	11.	_ <u>:</u>	FLANNED ACC	OMPLISHMEN	₹TS	•	. •
	1,	OCT 73	Provide	standards in	put to water quality mo			1.2	2.0
	2	JUN 73	Review N	.D. standard	s and determine need fo	or changin	g the use	· · · · · · · · · · · · · · · · · · ·	
			classifi	cations. Ch	eck compatibility with	Minnesota	Water	· · · · · · · · · · · · · · · · · · ·	•
			Quality	Standards an	d pending legislation.			·.5	0
777					(	<del></del>	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
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2.	FY 1	973	13. FY	1974	14. Prepared by & Dat	e 15. Revi	lewed by & Date	16.Approve	ed forRPI
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enc maccall	34 MAG		aIU	D *	Planned Accomplishmen	ts		Terry Tree Tree Core	- <del>- 100 - 1</del>

### PLANNED ACCOMPLISHMENTS SCHEDULE

1. Typ	e of	Plan Element	2. Progra	m Sub-Elemo	nt Tit	Wat le Age	er Poli ncy Gra	ution ints	Control	3. 9	2B4753men	t No.	4.Sheet No.
c.	Geo.	. Sub-Elem. Area	S. Geogra	phical Area	Title	Red R	iver of	the No	orth	6. (	Geo. Area ( 0701	Code ·	7.Priority
Code	9. No.	10SchedDate of Comp.	11.				I'LANNE	D ACCOM	PLISIMEN	TS			
777	·]	Oct 73	Review	IC survey r	eport	and de	termine	whethe	er State	1 and	5 year n	eeds list	
777			to be chi	ged.				0	.25				
777	`.2	June 76	Review, c	por inate,	and ap	prove 1	V. D. S	tate Pi	ogram Pl	an	1.25	1.25	
777	`3.	June 76	Update 1	and 5 year	needs	list		.3	.3				•
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13	FY 1	973 b.	13. FY a15	1974	14. TA		red by -22-72	& Date	15. Rev1	.ewcd	by & Date	110.Appro	ved forRPIC

# PLANNED ACCOMPL'. AMENTS SCHEDULE

2	]Sub-	-Element	2. Program Sub-Elemen	t Title Water	Quality Inf				4. Sheet No.
		t. Sub-Elem. . Area	5. Geographical Area	Title Red Riv	er of the N	lorth	6. Geo. Area 0701	Code ·	7.Priority
1		10SchedDate		PI	•				
777	1_	Oct 72	Retrieve WO data for	math model		.1	5 0		
	2	Jun 76	Input water quality d	ata to STORET	and retriev	/e water q	uality data	for the ba	asin
			when requested.			1.0	.15		•
	3	Jun 76	Update 1 and 5 year n	eeds list		.3	.3		
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7								· 	
	·FY	1973	43. 5 - FY 1974			15. Review	ved«by«& "Date	16.Appro	ovedforRPIO
a12	. <del>National de la constant</del>	b.	a15 b.	TA 9-22-7	2				

	b. Part. Sub-Elem.		2. Program Sub-Element Title Water Quality Enforcement	3. Sub-Elemen	t No.	4. Sheet No.			
ь			5. Geographical Area Title Red River of the North	Code	7.Priority				
.Code	9. No .	10SchedDate of Comp.	11. PLANNED ACCOMPLISHMENT						
	1	JUN 73	Review Water Quality Management Plan for the Red Rive		·				
		,	Fargo-Moorhead SMSA.		.3	.0			
	2		Influence N.D. and the following municipalities to pr	ovide nutrient	removal	if şuch			
			a need is determined.						
		JUN 75	a. Fargo, N.D WWTP		0	.2			
		11	b. Grafton, N.D WWTP Imp.	0	.15				
		l <b>s</b>	c. Wahpeton, N.D WWTP Imp.	0	0				
		13	d. Valley City, N.D WWTP Imp.	0	0				
	3	SEP 74	Reconvene Enforcement Conference & Publish Report		5.0	3.0			
	4	JUN 76	Follow-up on recommendations coming from the enforcem	ent	0	2.5			
			Conference.						
	5	JUN 73	Follow-up on the compliance schedule of Fargo's 180-d	ay notice	.30	.2			
	6	JUN 76	Determine necessity of enforcement action for Drayton and other						
			possible potential 180-day notices (e.g. Drayton)	1.5	1.4				
12.	FY 1	973	13. FY 1974   14. Prepared by & Date 15. Revi	eved by & Date	16 Appr	oved forRPIO			
•		b.	a. b. TA 9-22-72	caca by a bace					

1. Type of	Plan Element	2. Program	Sub-Elemen	t Titl	Le Water (	) Juality Er	forcem	ent 3	Sub-Elemen	t No.	4. Sheet No.
b. Part	. Sub-Elem.	5. Geograp	hical Arca					16	. Geo. Arca 0701		7.Priority
3.Cocc 3.No.	10SchedDate of Comp.	11.			PL	ANNED ACC	OMPLIS	HMENTS			
7	JUL 74	Assist Enf	orcement in	obtai	ning comm	nitment le	tters	for 11	industries	2.0	.6
8	JUN 76	Evaluate t	he results o	of S&A	's monito	oring of t	he str	eam and	effluent		
		for the 11	industries	from	which con	nmitments	were o	btained.	•	Ö.	2.0
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12. FY 1	973	13. FY 1	974	14	Prepared	hy & Dat	-015	Roulowo	d by & Date	16.Appr	eved forRPIO
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AT SCHOOLSELE BULL	PANESTONE SERVICE SERVICE	· your Caracanalis	THE TENNESS OF THE	Pla	nned Attco	mplishmer	its	and the second of	र्वेद्रमञ्जूष्ट <mark>है । इस्तर्यक्रम</mark> ार व		

I. Typ		Plan -Eloment	2. Program	n Sub-Element	t TitleTec	nnical Supp	ort & Assis	3. Sub-Elemer 2B5154	nt No.	4.Sheet No.
Ъ	Part Caa	. Sub-Elem.	5. Geogra	phical Area T	ritle Red	River of t	he North .	6. Geo. Area 0701	Code ·	7.Priority
.Code	9. No .	10SchedDate	11	· · · · · · · · · · · · · · · · · · ·		PLANNED A	COMPLISHÆ!	NTS		
	- ٦	June 73	Coordinate	with and as	ssist DFIC	in a strea	n survey th	at is intended	to see if	in-stream
7//			water qua	lity has imp	roved as a	result of	improvement	s'to certain wa	stewater 1	reatment
	· ·		plants. (	).5 0						
	2	June 74	Supplement	the DFIC Su	urvey to de	etermine th	e'water qua	lity impact of	subsequent	actions
			for improv	/ing water qu	uality.	0 4.0				
	3	June 74	Conduct a	water qualit	ty survey t	o determin	e a nutrien	t balance of the	e Red Rive	r System.
			0 10							
	4	June 73	Review Wat	er Quality i	lanagement	Plan for Re	ed River Bas	sin and Fargo-N	corhead	
			SIISA.			.3	0			
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<u> </u>	FY 1	973	13. FY	1974	14. Prepa	ired by & D	ato 15. Rev	iewed by & Date	16.Appro	ved forRPIO
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# PLANNED ACCOMPLISHMENTS SCHEDULE

1. Typ		Plan Element	2. Program Sub-Element Titl	e Water Quality Mor	nitoring	3. Sub-Element 2B2147	No. 4	Sheet.	
b. Part. Sub-Elem. c. Geo, Area			5. Geographical Area Title	Code 7	7.Priority				
.Code	9. No .	10SchedDate of Comp.	11.	PLANNED ACCOM	PLISHMENT	S			<u></u>
	1_	FEB 73	Supplement · O&M effort to as	ssure effective moni	itoring o	f the Water Qu	ality		
			Impact of WWTP improvements	s and/or construction	on.			2	.0
	2	JUN 76	Work with Enforcement and F	Permits Branches to	effectiv	ely monitor ef	fluent		
			discharged from industrial	sources.		·•		0	2.5
								-	
11									
111					<del></del>		· · · · · · ·		
11					<del></del>				
111							·······························	<u> </u>	
11					v 3-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2	A SAME THE PROPERTY OF THE PRO			
44					<del></del>				
44	-				<del></del>			<del></del> -	
44									
11/	-							<del></del>	
7									
12.	FY	1973	13. FY 1974 14.	Prepared by & Date	15. Revie	ewed by & Date	16.Approv	ed for	RPI(
0	2 .	b	a 27   b.   T.A	9-22-72	*** **********************************		l Santina de des		<del></del> -

1. Type	e of	Plan Element	2. Program S	ub-Element	Title M	anpower Plann	ing	3. Sub-	-Elemen 161	t No.	Sheet No.
ь. <u></u>	]Part  Gec.	Sub-Elem.	5. Geographi	.cal Area Ti	tle Red	River of the	North	6. Geo	Arca 0701	Code -	Priority
S.Code	9. No -	10SchedDate of Comp.	11.			PLANNED ACC	,	TS			
	·1	June 76	Work with St	ate on dev	eloping m	anpower plann			.2	.2	
	.2	June 76	In-house mar	ipower plani	ning - em	ployment and	training	project	.5	.5	
	•			<u> </u>							
				<del></del>		<del></del>		~ <del></del>	· ·		•
11/				<del></del>	· <del></del>		<del></del>			· · · · · · · · · · · · · · · · · · ·	
11/1				<del></del>				<del> </del>	<del></del>		
177				<del></del>		= · <del></del>	· · · · · · · · · · · · · · · · · · ·				
14						<del></del>		·	<del></del>		<del></del>
177								<del></del>			<del></del>
7-7-7				····							
477									<del></del>		
777	-			<del></del>		<del></del>					- <u></u>
147				<del> </del>					·- <del></del>	<del>,</del>	
777									<del></del>		<del></del>
777											
444										•	-
12.	FY I	973	13. FY 19	14	14. Prep	ared by & Dat	e 15. Revi	lewed by	& Date	16.Appro	ved forRPIO
06		b. ·	a06		TA	9-22-72		,			·

Planned Accomplishments

1. Typ		Plan -Element	2. Program Sub-Element Title Direct training - Water 287160	4.Shee	et No. f l
b.□ □.a	JGeo	. Sub-Elem. Area	5. Geographical Area Title Red River of the North  6. Geo. Area Code	7.Pric	rity
.Code	9. No .	10SchedDate of Comp.	11. PLANNED ACCOMPLISHMENTS		
777	1	lune, 76	Assist O&M (2B8163) on the inspections of completed municipal wastewater	<u> </u>	
777	1_		facilities projects (14)	.05	.4
777	2	APR 74	a. Fargo WWTP	0	.0
777,		APR 74	b. Fargo Water Treatment	0	.0
777		JUN 74	c. Grafton WWTP Imp.	00	. 0
777		OCT 72	d. Park River Interceptor	05	0_
777		MAY 74	e. Amenia WWTP	0	0
777		MAY 74	f. Abercrombie WWTP	0	0
777		MAY 74	g. Wahpeton WWTP Imp.	0	.0
777		AUG 73	h. Valley City WWTP Imp.	0	.0
777		JUN 76	i. Fargo Interceptor		
777,		JUN 76	j. Grafton Interceptor		
777		JUN 76	k. Grand Forks Interceptor	0	<u>ا</u> ئالى
777		JUN 76	1. Valley City Interceptor	(3 of	· 6)
		JUN 76	m. Wahpeton Interceptor		
12.	FY :	JUN 76 1973	n. W. Fargo Interceptor  13. FY 1974 14. Prepared by & Date 15. Reviewed by & Date 16.Ab	proved fo	orBPI
.004		b	a. 04 b. T.A. 9-22-72		

## PLANNED ACCOMPLI IENTS SCHEDULE

1. Ty	re of	Plan -Element	2. Progr	cam Sub-Elem	ent Title	Operator Trai	ning - Wa	ter 3.	Sub7Flgmen	t No.	.Sheet No
]. d الـعـــ	Par	t. Sub-Elem. . Area	5. Geogr	raphical Are	a Title Re	ed River of th	e North	6.	Geo Area 0701	Code · 7	Priority
.Code	9. No	10SchedDate of Comp.	11			l'LANNED A	CCOMPLISH	MENTS			
77	1-1	Dec 72	Monitor	training c	ourse in W	lahpeton	•	.3	0		
77	2	Jul 73	Monitor	training c	ourse in G	irand Forks	,	. 3	0	•	
77	3	June 76	Continu	e training	support in	Red River		. 4	1.0		
	>4.	June 76		•		ing Program		<u>".1</u>	.1		
7/	}-		<del></del>				<del></del>	·		·····	
-	1									•	
17								·			
77	1.										
44	1		<del></del>				·				
77,	-				<del></del>		······································			<del></del>	
17	1		······································	·····	·		<del></del>	<del></del>		· · · • · · · · · · · · · · · · · · · ·	
//	1		<del></del>					_ <del></del>			
77,	1	·		<del></del>			······································				· · · · · · · · · · · · · · · · · · ·
2.	FY	1973	13. FY	1974	14 P-	epared by & D	250 15 P	211212	hy & Data	176 Annrois	ed forRPI
.09		b	a09	b.	TA TA	9-22-72	are IJ. Ke	EATEMED		IIU.Appiov	eu loriu I

	PRIC 'BASIM ACCOMPLISHMENTS: SEN	11-ANNUAL PREPARATIONS IN	TOHES REPORT	DATE SUBMITTED:
	REGICH VIII H	ALF. 19 72	<del></del>	BASIN: Red River of the North
<del>5.</del>	PREPARED BY: Terry Anderson		General Engineer .	TEL
. K	(Same)		(Title)	
<b>u:</b>	APPROVED BY:(Name)	· · · · · · · · · · · · · · · · · · ·	(Title)	(Initials)
	MILESTONES	DATE MILESTONE ATTAINED OF TO BE ATTAINED	FOR EACH PERIOD IN OU MEADQUARTERS AYTENTIC	ADEQUATE PREPARATIONS AND INDICATE . RRENT STATUS. DISCUSS THOSE MEEDING ON, INCLUDING REASONS. CORRECTIVE THOMS FOR FUTURE PROGRESS. USE AS NECESSARY.
TIRD	ICAL WO DATA ODTAINED NO		Instream Water Qualit closely with those ti	y needs to be correlated more mes when discharges are permitted.
cairi	CAL EFFLUENT DATA OBTAINED NO		North Dakota requires Nowever, insufficient Slug loadings occur d	holding of waste during ice cover. data exists that identifies what puring discharge.
REGE	SSARY MODELLING COMPLETED NO .	OCT 1972	Hodel is underway.	
AFE	R/FULLY DEVELOPED PLANS FOR AREA GVED AND NO REVISIONS NEEDED NO	JULY 1, 1973	Water Quality Managem time will prevent det	ent Plan on schedule - money and ail analysis of all waste sources.
7.112 111100	E PRIORITIES FOR 1 & 5 YEAR MILEOS YES ORMED WITH ACCOMPLISHMENT PLAN			
EFFLU AVVIL	ENT GUIDCLENES FOR CRITICAL SOURCES NO	0	Need effluent guideli Stockyards in W.Fargo	nes for Armour Food and Union Ninnkota Power Coop in Grand Forks,
	RITERIA COVERINO ALL CRITICAL PARAMETE EA AFFROYED AND NO REVISIONS MEEDED Y		•	d if national policy will be to recreational classification.
\$1,7	ESICHATIONS AND HONOEGRABATION ENERTS FOR AREA WATERS YES, EVID AND NO REVISIONS MEEDED		apprade arr seredins e	
	MENTATION SCHEDULES COVERING THE AREA MARGERS APPROVED AND CONFORMED WITH.		1965 Enforcement Conf	erence established the dates.
	APPISHMENT PLAN YES			P 1_ 01: 1

# SECTION D

Point Source Loads & Locations

RIVER BASIN RED WASTEWATER SOURCE American Crystal Sugar-Drayton

TABLE 1

Present   Pres	
Present   Pres. Reduc. Req'd   FY 72 Commits   FY 73.74 Commits   Expected Incr.   (3) + (4)   (2) + (5)	
Waste Parameter  Flow, MGD	
Flow, MGD	PV
PH 7.5 MGD AVE. 7.5 MGD AVE. 7.5 MGD AVE. 7.5 MGD AVE. 7.6 MGD Max. 12.5 MGD Max. 12.5 MGD AVE. 63 MGD Max. 12.5 MGD AVE. 12.5 MGD AVE	
PH   7.6	
BOD <sub>5</sub>   72 Max. 5   63,044#/Day   60794   2750   63,044#/Day   60794   60	
BOD <sub>5</sub>   415 mg/1;   63,044#/Day   60794   2750   60794   2750    TDS   1078 mg/1;   170,906#/Day   13,420#/Day   13,420#/Day   13,420#/Day    NH <sub>3</sub> -N   15.20 mg/1;   2410#/Day   10   10   10   10   10   10   10   1	
TDS	3
TSS   102 mg/1;   13,420#/Day   13420   13420   15,720#/Day   15,20 mg/1;   2410#/Day   10   10   10   10   10   10   10   1	3
NH3-N   15.20 mg/1	3
Org-N :ID	
Total-N ND	
Total-P ND	
Fecal Coli. No Reported May 75 x 10 <sup>6</sup> /Ton 75 x 10 <sup>6</sup> /Ton	
Total Coli. Not Reported	
Grease & Oil NA	
Toxic Metals MA Sulfides 0.65 mg/l Other Toxics	
(i) (2) $_{1at. 48-36-00}$ (3) (4) (5) (6)	9
COMMENTS long. 97-09-00	

COMMENTS Type of Facility - Sugar Beet Design P.E.

3.

Present P.E.

Effluent Requirements

1. BOD5 = 0.5#/Ton sliced beets - EPA requirements.

2. Fecal coliform = 75 x 106/ton of sliced beets - EPA requirements; or 41 x 10<sup>10</sup>/day over intake

PHYLL PASIN Red

WASHIWATER SOURCE Armour Food-West Fargo

EIVER MILE 25.1 Sheyenne River

PV/PN 7/2 Total Commits Total Reduction FY 72 Commits Expected Incr. Present Pres. Reduc. Regid FY 73, 74 Commits (3) + (4)(2) + (5)73 74 75 76 73 74 75 73 74 75 76 75 Waste Parameter to Meet EPA Obj. 74 75 76 PV Load Flow, MGD .017 Est. 10% (.0017) 7.6 PH N/A N/A Temp, °F 45 W 68 S BODs 54 mg/l; No obj. as yet. Will locate exact None 5.4#/day location of dis-.5 #/day TDS 1597 mg/l Probable connect charge to sewer. 159.7 #/day to San. Sewer. 15.9 #/day TSS 26 mg/l, 2.6 #/day .26 #/day NH3-N 1.0 mg/1 0.10 #/day .01 #/day Org-N N/D Total-N N/D Total-P  $1.63 \, \text{mg}/1$ .016 #/day .16 #/day Fecal Coli. 115 11.5 #/day Total Coli. 19,300 1,9300/day 3 Grease & Oil 84 mg/1, 8#/day 8.4 #/day Toxic Hetals N/A Other Toxics N/A (2) (3) (4) (5) (6) (7) (1)

TABLE 1

COMMENTS:

Type of Facility

Design P.E. Present P.E.

Effluent Requirements

1. 2.

3.

RIVER BASIN Red

WASTEWATER SOURCEFargo (Construction underway) WWTP RIVER MILE 441 Red

TABLE I

RIVER MILE 441	Red	cion undernagi, mini																		
PV/PN 6.5/3			<del>                                     </del>					-1					tāl C	Corrmi 1	ī.s	To	tal R			<u>PV</u>
Waste Parameter	Present Load	Pres. Reduc. Req'd to Meet EPA Obj.	FY 72 73 74	Commits 75 76		74 74	Commits 75 76	Ex	pecte 74	d Inci 75	r. 76		(3) ÷ 74	- (4 75		1 73	(2) 7÷	+ (± 75	5) 7 <u>6</u>	
Flow, MGD	10 MGD Design 7.0															!				
PH	N/ D							ļ								1				
Temp, °F	N/D															i				
BOD <sub>5</sub> 12000#/0	3500 #/Day	2044 #/day	2300 #/da	ay (74)				19.2	19.2	19.2	19.2	2300	2300	0	C	2063	19.2	19.2	19.2	3.0
TDS	N/D															;			į	.5
TSS /14040#/D	4200 " "	2449 "	2449 #/0	day (74)				22.6	22.6	22.6	22.6	2449	2449	0	0	2472	22.6	22.6	22.6	3.0
NН3-И	N/D															Î.			Í	
Org-N	N/D															1			!	
Total-N	N/D															1				
Total-P	N/D							]			! 								į	
Fecal Coli.	N/D															i i			1	
Total Coli.	N/D				 						i					1		,	:	
Grease & Oil	N/A																		:	
Toxic Metals	N/A																		1	
Other Toxics		(2)	<del>73</del> 1	:		(4)		<u> </u>	(5)				(6)			<u> </u>	(7	<del></del>		6.5*
0014151170	(1)	(2)	(3)			(4)			(3)				10)				1,	,		0.5"

COMMENTS:

Type of Facility - Trickling Filter followed by lagoons (580 acres)

Design P.E. 85,000 (yr.2000)  $1130 \text{ PE/Yr.} = 192.1 \#BOD_5/Day, Q = .11 mgd. increase/yr. BOD incr. = <math>19.2\#/day$   $1130 \text{ PE/Yr.} = 192.1 \#BOD_5/Day, Q = .11 mgd. increase/yr. BOD incr. = <math>19.2\#/day$ 

<sup>1974</sup> 1975 Effluent Requirements 1972 1973 1976 1. 25 mg/l - BOD - 1456#/d 1501#/d 1547#/d 1524#/d 1479#/d 2. 30 mg/1 - SS - 1751#/d 3. 0 = 1 1860#/d 1775#/d 1801#/d 1832#/d 7.44 7.33 Q = 110D 7.117.22

Type Sewer (Combined or Separate)
\*This project is a special exception because of enforcement proceedings.

RIVER BASIN Red

MASTEMATER SOURCE Union Stockyards-W. Fargo

TABLE I

PV/PR6	LL <u>25.</u>	l_Sheyenne River	<del></del>						Total	Commits		Total			
1 1/ / 11	2/4	Present	Pres. Reduc. Req'd	FY 72 Commits	IY 73, 74 Commits	Expe	cted In	cr.	(3)	+ (4)		(2)	+	(5)	]
Was <u>te</u> Par	rameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73	74 75	76	73 74	75 7	6 7	3 74	75	76	<u> PV</u>
Flow,		.917	1.0			10	)%								
PH		8.3	6.5 to 8.5												
Temp,	°F	41 w 69 s		None	None				No	ne					
$\mathtt{BOD}_5$		10 mg/1	572 #/day			70	20 70	70							
TDS		782 #/day 1293 9900				78 990 99	78 78 90 990	78 990			650 990	78 990	78 990	.78 990	
TSS		460 5000	4,750 #/day		4750 #/day	500 50	00 500	500	47	750 #/day	525	0 500	500	500	]
ин3-и		6 54.6				5	5 5	5				5 5	5	5	3
Org-N		N/D													
Total-	-N	N/D				1.3 1.	3 1.3	1.3			1.	3 1.3	1.3	1.3	
Total-	-P	1.8 13.85													
Fecal	Coli.	360/100 ml.													
Total	Coli.	965/100 ml.	5000/100 ml.												
Grease	e & 011	N/A													
Toxic	lletals	N/A													
<u>Other</u>	Toxics	N/A (1)	(2)	(3)	(4)	<u> </u>	5)	!	(6)				7)		6

COMMENTS:

(1) (2) Lat. 46-50-45 Long. 46-53-30

Type of Facility Holding sen washing, trough washing, water trough Design P.E. ran over.
Present P.E.

Effluent Requirements

1. 2.

Type Sewer (Combined or Separate)

Company and EPA are currently working on commits.
Better conservation practices should decrease waste loads.

RIVER BASIN Red
WASTEWATER SOURCE Fargo, N.D. Water Filtration Plant
RIVER MILE 441 Red

TABLE I

PV/PN 5/5		<del></del>					Total Commits	Total Reduction	PV
	Present	Pres. Reduc. Req'd	FY 72 Commits	FY 73, 7	4 Commits	Expected Incr.	(3) + (4)	(2) + (5)	<u> </u>
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74	75 76	73 74 75	76 73 74 75 76	5 73 74 75 76	<u>;</u>
Flow, MGD	14.0								
РН	7.0					-			
Temp, °F	N/D								DNA
B0D <sub>5</sub>	o			1				1	ĺ
TDS	N/D								DNA
TSS	40,000 #/day	36,500 #/day	40,000 #/day	0 0	0 0	0 0 0	0 0 0 0	40,000 #/day	5.0
ин3-и	N/D								
Org-N 、	N/D								
Total-N	N/D								
Total-P	N/D								
Fecal Coli.	N/D								
Total Coli.	N/D								
Grease & Oil	N/A						;		DNA
Toxic ::etals	N/A								
Other Toxics	N/A	/0\	(2)			1		77.	F 0
	(1)	(2)	(3)	(4)		(5)	(6)	(7)	5.0

COMMENTS:

Type of Facility - Sludge handling facilities for water filtration plant.

Design P.E. - 53,365

Present P.E. - 35,000

Effluent Requirements

1.

2. 30 mg/1 SS-3500 #/day 3.

RIVER BASIN Red WASTEWATER SOURCE Minnekota Power Coop. Grand Forks RIVER MILE Red 298 Red

TABLE I

RIVER MILE Red PV/PN 5/5	298 Red														T		Commi		To		aduct		<u> </u>
	Present	Pres. Reduc. Req'd	F	Y 72	Comm:	its	FY	73,	74 Con	mıts	T	Expected	Incr	1		(3)	÷ (4		1	(2)	_+ (	5)	
Waste Parameter	Load	to Meet EPA Obj.	73	74	75	76	73	74	75	76	1-	73 74	75	76	73	74	75	76	73	74	75	76	
Flow, MGD	30 mgd											No increas Dlant expa											    -
РН	8													ļ					' '				
Temp, °F	60 w 85 s						None												ŧ			!	! !
B0D <sub>5</sub>	6 mg/l 1500 #/day																		•				j
TDS	200 mg/l, 50,000 #/day		0	0	0	0	0	0	0	0					0	0	0	0	. 0	0	0	0	3
TSS	20 mg/l, 5,000 #/day	4980 #/day	0	0	0	0	0	0	4980	0				]	0	0	4980	0	4980	0	0	0	1
NH3-N	0.2 mg/l 50 lb/day																		:			į	į
Org-N	N/D		]											ļ	•				:				
Total-N	N/D																					ì	
Total-P	0.2 mg/l 50 #/day																					į	
Fecal Coli.	N/A													!								į	
Total Coli.	N/D										1											į Į	
Grease & Oil	N/A						İ												1			:	
Toxic Hetals	N/A					ı													1				
Other Toxics								,-			<u> </u>			. !		- <del>(2</del> \			<u>i</u>		,	i	-
	(1)	(2)		(3)				(4	+)			(5)				(ô)				(7	)		5

COMMENTS:

Type of Facility - Lat. 47-56-25 Long. 97-2-40, steam-electric plant. Design P.E.
Present P.E.

Effluent Requirements

1.

2.

RIVER BASIN Red

WASTEWATER SOURCE Otter Tail Power Co. Wahepton RIVER MILE Red 545.2 Red

TABLE I

PV/PN 5/5						Total Commits	Total Reduction	<u> PY</u>
	Present	Pres. Reduc. Req'd	FY 72 Commits	FY 73, 74 Commi	ts Expected Incr.	(3) + (4)	(2) ÷ (5)	-
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75	76   73   74   75   76	73 74 75 76	73 74 75 76	7
Flow, MGD	14.3						1	;
РН	8.4							1
Temp, °F	45 w 90 s							1
BOD <sub>5</sub>	7 mg/1833 #/c	ay					•	1
TDS	210 mg/1250,000 #/day						* · · · · · · · · · · · · · · · · · · ·	į
TSS	6 mg/1714 #/day	No EPA Obj. de- veloped as of 9/13	None		No increase unless		: N/A	3
NН3-И	.18 mg/1 21 #/day	1010000 01 3, 10			prans size is insi			1
Org-N	N/D					l o	:	i
Total-N	N/D							!
Total-P	N/D							;
Fecal Coli.	N/D							ı E
Total Colı.	N/D							ř
Grease & Oil	N/A							į
Toxic Metals	N/A							
Other Toxics	N/A		737	//	(F)	1 (5)	(7)	5
COMMENTS	(1)	(2)	(3)	(4)	(5)	(6)	(/)	J

COMMENTS:

Type of Facility - Steam-Electric Plant Lat. 46-17-18 Long. 96-36-03 Design P.E.

Present P.E.

Effluent Requirements

1. 2.

3.

RIVER BASIN Red WASTEWATER SOURCE Pillsbury-Grand Forks

TABLE I

RIVER MILE Red 298 Red

PV/PN 3/6		<del></del>	<b>.</b>			Total Commits	Total Reduction	PV
Waste Parameter	Present Load	Pres. Reduc. Req'd to Meet EPA Obj.	FY 72 Commits 73 74 75 76	FY 73, 74 Commits 73 74 75 76	Expected Incr. 73 74 75 76	(3) + (4) 73   74   75   76	(2) + (5) 73 74 75 76	!
Flow, MGD	0.23							,     
PH	8.1							
Temp, °F	68°F							1
BOD <sub>5</sub>	20 mg/l	No EPA objective	None	None	No increase	N/A	N/A	1
TDS	37.2 #/day 4848 mg/l				expected.			, 1
TSS	9160 #/day 10 mg/l						<b>,</b>	1
ин3-и	19.1 #/day .44 mg/l					:	, ;	
Org-N	.75 #/day N/D							
Total-N	N/D							
Total-P	.026 mg/l							
Fecal Coli.	.050 #/day N/D							
Total Coli.	N/D						,	
Grease & Oil	N/A							
Toxic ∷etals	N/A							
Other Toxics	N/ A							
COMMENTS.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	3

Lat. 47-56-40

DOIMENTS: Type of Facility Design P.E. Long. 97-03-20

Water used for air conditioner cooling only.

Present P.E.

Effluent Requirements

1. 2. 3.

RIVER BASIN Red TABLE I WASTEWATER SOURCE USDI Valley City National Fish Hatchery, Valley City

RIVER MILE	Sheyenne River	248 Valley City				Takal Campina	Total Deduction	ΓV
PV/PN <u>2.5/7</u>	Present	Pres. Reduc. Req'd	FY 72 Commits	FY 73, 74 Commits	Expected Incr.	Total Commits (3) + (4)	Total Reduction (2) - (5)	<u> 57</u>
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 75 76			:
Flow, MGD	10.9 x 10 <sup>6</sup> gal/	yr.					 	! {
РН	7.9						:	i :
Temp, °F	39 W 85 S						: :	Ì
BOD <sub>5</sub>		No objective.	None	None	No increase unless size is increased.	None	None	1
TDS	0.1 mg/l02#	#/day			3,20 13 1110 20 3201		; ;	.5
TSS	.14 mg/10336	#/day					: :	1
ин <sub>3</sub> -и	0.75 mg/l - <i>.</i> 18	#/day					;	
Org-N	N/D						1	
Total-N	N/D							
Total-P	0.40 mg/l09	6 #/day						
Fecal Coli.	N/D						( ! !	
Total Coli.	N/ D						1	
Grease & Oil	N/A				,			
Toxic Hetals	N/A							
Other Toxics	N/A	(0)		(4)	(5)	(6)	<u> </u>	2.5
COMMENTS	(1)	(2)	(3)	(4)	(5)	(6)	(7)	2.3

COMMENTS:
Type of Facility Fish Hatchery
Design P.E.
Present P.E. Lat. 46-57-45 Long. 98-01-45

Effluent Requirements

1. 2. 3.

RIVER BASIN <u>Red</u>
WASTEWATER <u>SOURCE USDI-Baldhill Dam</u> National Fish Hatchery-Valley City
RIVER MILE <u>Sheyenne River 248 Va</u>lley City

PV/PN 2.5/7	Venne Kiver 240	<u>valley</u> City				Total Commits	Total Reduction	<u> 27</u>
	Present	Pres. Reduc. Req'd	FY 72 Commits	FY 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	-
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	73   74   75   7ε	-1
Flow, MGD	11.5 x 10 <sup>6</sup> gal/	yr.			•	1		:
РН	8.4							! :
Temp, °F	39 w 85 s						:	
BOD <sub>5</sub>	6 mg/1 .15 #/day	No objectives.	No commits	None	None unless Hatcher size is increased.	y None	None	1
TDS	0.1 .02 #/da	ıly						.5
TSS	25 mg/l - 6.55	#/day					;	1
ин <sub>3</sub> −и	0.06 mg/1015	#/day				! !	, ,	
Org-N	N/D					.,		1
Total-N	N/D							
Total-P	0.20 mg/1052	5.#/day						ļ
Fecal Coli.	N/D						;	
Total Coli.	N/D						,	;
Grease & Oil	N/A							
Toxic Metals	N/A							<del>!</del>
Other Toxics	N/A			(4)	75	(5)	(7)	
COMMENTS	(1)	(2)	(3)	(4)	(5)	(€)	(7)	2.5

COMMENTS:
Type of Facility Fi
Design P.E.
Present P.E.
Effluent Requirements Fish Hatchery Lat. 47-02, Long. 098-05 Discharge is intermittent.

1.

2.

RIVER BASIN Red
WASTEWATER SOURCE Abercombie (plant new under construction)

TABLE I

RIVER MILE	Red														Tc	tal (	lommi	ts	Tot	5.7 Re	educț	ion	<u>PV</u>
PT/PN 2.5/7	Present	Pres. Reduc. Req'd	FY	72 (	Commit	s	FY 7	3, 7	4 Com		Ex	pecte	d Incr			3) +					<u>- (</u>	5)	;
Waste Parameter	Load	to Meet EPA Obj.	73	74	Commit 75	76	73	74	75	76	73	74	75	76	73	74	75	76	73	74	75	76	· ·
Flow, MGD	.096																		1				
РН	7																		, 1 1				:
Temp, °F	N/D														110.0	0	0	0	:  112.8	0	0	0	1.0
BOD <sub>5</sub> 44.2	132.6 #/day (150 mg/l)	112.8 #/day	118.8	0	0	0	0	0	0	0	0	0	0	0	118.8	U	0	U	1112.0	U	U	U	0.5
TDS	(130 mg/ 17										1			•	142.4	0	0	0	132	0	0	0	, 1.0
TSS 520	156 #/day 190 mg/l	132 #/day	143.4	0	0	0	C	0	0	0	0	0	0	υ	143.4	U	0	0	1 32	U	U	U	1 1 2 0
NH3-N	N/D														•				:				i I
Org-N	N/D														·· 								i
Total-N	N/D														į								} •
Total-P	N/D														1				Ì				į 1
Fecal Coli.	N/D						ļ								-								
Total Coli.	N/D																		ì		,		í 1
Grease & Oil	N/A																	,	1				İ
Toxic Hetals	N/A														:								
Other Toxics	N/A (1)	(2)		(3)			ļ	(4)	)		<u> </u>	(5)				(6)			<u>.i</u>	(7	)		2.5

CONMENTS:

Lagoons (3 acres)

Type of Facility
Design P.E. 350 - 19<del>9</del>0 260 - 1990 Present P.E.

Effluent Requirements

1. 25 mg/1 - BOD - (208) - 19.8 #/day 2. 30 mg/1 - SS - (2502) - 24.0 #/day 3.

RIVER DASIN Red

TABLE I

WASTLWATER SOURCE Amenia

PIVID HILE A26 (P. P. - confluence w/Push Piver)

RIVLR HILE <u>426 (R</u>	R.R. – confluen	<u>ice w</u> /Rush River)													To	tal (	Commi	ts	Tot		educți	on	<u> PV</u>
PV/PN 2.5/7	Present	Pres. Reduc. Reg'd	1 F	Y 72	Commi	ts	1 Y	73, 7	4 Com	nits	Ex	pectec	Incr	`		\ <u>`</u>	+ (4		<u> </u>	(2)	+ (5	)	
Waste Parameter	Load	to Meet EPA Obj.	73	74	75	76	./3	74	75	76	73	74	75	76	73	74	75	76	73	74	75	/6	†
Flow, MGD	.011														<u> </u>								
PH	N/D																						
Temp, °F	N/D																						
BOD <sub>5</sub>	17 #/day	14.7 #/day	0	15.0	0	0	0	0	0	0	0	0	0	0	15.3	0	0	0	14.7	0	0	0	1.0
TDS	N/D														ļ								0.5
TSS	20#/day	17.2 #/Day	0	18	0	0	0	0	0	0	0	0	0	0	18	0	0	0	17.2	0	0	0	1.0
ин3-11	N/D																					•	
Org-il	N/D																						
Total-N	N/D						i												ļ				
Total-P	N/D																						
Fecal Coli.	G/N																						
Total Coli.	N/D																						
Grease & Oil	N/A						1																DNA
Toxic Hetals	N/A						}																
Other Toxics	N/A	(2)		(3)			<u> </u>	(4)	Υ		l L	(5)				(6)			L		<del>')</del>		J
COMMENTS:	(1)	(2)		(3)	1			, · ·	,			\ - <i>I</i>				• •							2.5

COMMENTS:

Type of Facility - Present facilities - septic tanks, proposed future facilities - 2-cell waste stabilization lagoon system.

- 150 Design P.E. - 100 Present P.E.

Effluent Requirements

1. 25 mg/l - BOD - (208) - 2.3 #/day

2. 30 mg/1 - SS - (256.2) - 2.8 #/day 3.

Type Sewer (🎖ﮔާރާމާމާމެ or Separate) No storm sewer.

RIVER DASIN Red

WASTEMATER SOURCE Cavalier (assume 90% removal)

TABLE I

RIVER MILE 196	Rush R. to Red to	<u>o_mo</u> uth				Total Commits	Total Reduction	PV
PV/PN 2.5/7	Present	Pres. Reduc. Req'd	FY 72 Commits	17 73, 74 Commits_	Expected Incr.	(3) + (4)	(2) + (5)	]
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	-
Flow, MGD	.48 mgd							
РН	N/D							
Temp, °F	N/D							
BOD <sub>5</sub>	70.5 #/day	0	0	0	48 #/day (est.)	0	Do not exceed ef-	1.0
TDS	(18 mg/1) N/D						fluent allowances.	0.5
TSS	82.5 #/day	0	0 '	0	50 #/day (est.)	0		1.0
NH3-II	(22 mg/l) N/D							
Org-N	N/D							
Total-N	N/ D							
Total-P	N/ D		:					
Fecal Coli.	N/ D		;					
Total Coli.	N/D							
Grease & Oil	N/A							DNA
Toxic Hetals	N/A							
Other Toxics	N/A	(2)	(3)	(4)	(5)	(6)	(7)	1
	(1)	(4)	(3)	(7)	( )	10/	V .	2.5

COMMENTS:

Type of Facility - 2-cell waste stabilization lagoon system (15.5 acres)
Design P.E. 1830 - 1992 (24.9 PE/Yr) lineal incremental growth

Present P.E. 1381 Effluent Requirements

1. 25 mg/1 - BOD - 208 - 99.9

2. 30 mg/1 - SS - 250.2 - 120.0 #/day

3.

Type Sewer (Romboinedxor Separate)

No significant impact. Is not developed in Tables III & IV. Code I will be used to indicate this fact on remainder of table.

HAMINGHER SCUREL Drayton

DELIGATE

PIVER TILE 208						Total Commits	Total Reduction	<u>PV</u> .
PV/PN 2.5/7		Pres. Reduc. Mag'd	FV 72 Commits	IY 73, 74 Commits	Expected Incr. 73 74 75 76	(3) + (4)	(2) + (5)	1
Waste Parameter	Present Load	to Meet EPA Obj.	FY 72 Commits 73 74 75 76	/3 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	1
Flow, MGD	. 33							
PH	N/D							
Temp, °F	N/D							
BOD <sub>5</sub>	55.8 #/day (20.3 mg/l)	0	0	0	.15 .15 .15 .15	0	0	1.0
TDS .	N/D							.5
īSS	65.7 #/day	0	0	0	.17 .17 .17 .17	0	0	1.0
ин3-и	24 mg/1 N/D							
Org-H	N/D			1				
Total-N	N/D						1	
Total-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/D							DNA
Grease & Uil	N/D							ANIG
Toxic Hetals	N/A							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

COMMENTS:

Type of Facility - 10 acre - 2 cell lagoon system

Design P.E. 1250 ultimate (1990) 155 88 = 8.6 PE/Yr - 1.5 #/day

Present P.E.

1095

Effluent Requirements

25~mg/l - 208 - 68.6~#/day - 1976~load to stream does not exceed ~68.6~#/day ~30~mg/l - 250.2 - 82.5~#/day - 1976~load to stream does not exceed ~82.5~#/day1. 2.

Type Sewer (Combitmedia Kor Separate)

CODE 1

Red RIVER BASIN

WASTEMATER SOURCE Fairmount

TABLE I

RIVER MILE 462 Red

RIVER WILE 462 PV/PN 2.5/7	Red .					Total Commits	Total Reduction (2) + (5)	- PV
PV/fil 2.5/7	Present	Pres. Reduc. Reg'd	FY 72 Commits	1 Y 73, 74 Commits 73 74 75 76	Expected Incr. 73 74 75 76	(3) + (4) $73  74  75  76$	(2) + (5) 73 74 75 76	1
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 73 70	70 71 70		1
Flow, MGD	.12							
PH	N/D							
Temp, °F	N/D	ļ			-			1
BOD <sub>5</sub>	21.0 #/day 20 mg/l	0	0	0	0	0	0	1.0
TDS .	N/D					_		.5
TSS	27.7 #/day 27 mg/l	0	0	0	0	0	0	1.0
NH3-N	N/D							
Org-N	N/D							İ
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/D							
Grease & Oil	N/A							
Toxic Hetals	N/A							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

### CONMENTS:

Type of Facility - Lagoon system, 2 cells (5.20 acres)
Design P.E. 612 - 1992 \(\bigcup\_{\text{8.3 PF/Yr}}\)

612 - 1992 \ 8.3 PE/Yr Present P.E.

Effluent Requirements

1. 25 mg/l - BOD - 25.5 #/day

2. 30 mg/1 - SS - 30.9 #/day

Type Sewer (Combined xor Separate)

CODE 1

ROYET DASIN\_\_\_Red

WITTELATER SOURCE Grafton

FILL HILE 220 R. Park to Red to mouth

TABLE I

PY/PH 2.5/7	K.Park to Red to	<del></del>										Γ	otal (	Commi t	s	Tot	al Re	ducti	on	PV
,	Present	Pres. Reduc. Reg'd	F١	72	Commi t 75	ts	T Y	73, 74 74	Com	111ts	Expected Incr.		. \ /	+ (4)				+ (5	)	1
Waste Parameter	Load	to Meet EPA Obj.	73	74	75	76	/3	74	75	76	73 74 75 76	73	74	75	76	73	74	75	/6	
Flow, MGD	5.7 MGD																			
PH	N/D																			
Temp, °F	N/D																			
$\mathtt{BOD}_{5}$	1740 #/day	555 #/day	570	0	0	0	0	0	0	0	Negligible	570	0	0	0	555	0	0	0	1.0
TDS	N/D																			. 5
TSS	2088 #/day	666 #/day	666	0	0	0	0	0	0	0	Negligible	666	0	0	0	666	0	0	0	1.0
NH3-11	N/D																			
Org-N	N/D																			Į
Total-N	N/D																			
Total-P	N/D																			ı
Fecal Coli.	N/D																			
Total Coli.	N/D									Ì									}	
Grease & Oil	N/A																		}	υNA
Toxic Metals	N/A																			
Other Toxics	N/A			755			··-··				/E\		(6)					<del></del>		
COMMENTS:	(1)	(2)		(3)				(4)			(5)		(0)				ν,	,		2.5

COMMENTS:

Type of Facility 2.5 acre aerated lagoon followed by 2 x 70 (140 acres) lagoon cells - grant 1972 - pretreatment of industrial waste.

Design P.E. 33,000 466 PE/Yr. = .047 mgd or population projection 5663-1970 to 6550-1970 assume no individual growth.

BOD<sub>5</sub> inc. = 44 PE or 7.5 #/day Qinc - 4400 GPD BOD stream = .75 #/day Present P.E. 24,600 Qinc/Yr.

Effluent Requirements
1. 25 mg/l BOD - 1185 #/yr.

30 mg/1 SS - 1425 #/Yr.

Type Sewer XK&M&XXXeXXXXX Separate)

TIME INSULE Red

BO: 1 DATE: SOURCE Grand Forks

TABLE T

MINER MILE <u>298</u> 17/28 2.5/7	Red					Total Commits	Total Reduction	
2.0//	Present	Pres. Reduc. Reg'd	FY 72 Commits	FY 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	<u> </u>
Maste Parameter	Load	to Meet EPA Obj.	73 74 75 /6	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	_ <del> </del>
Flow, HGD	9.6				#/Day			
PH	N/D							
Temp, °F	N/D							
воо <sub>5</sub>	1992 #/day (25 mg/1)	0	0	0	37.5 37.5 3/.5 37.5	0	Based on pop. incr.	1.0
TDS	N/ D		•				and hydraulic incr. BOD & SS eff. req.	1 .5
TSS	2340 #/day (29 mg/1)	0	0	0	45.0 45.0 45.0 45.0	0	will not be violate	i.(
ин3-и	N/ D							
Org-H	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							
Total Colı.	N/D							
Grease & Uil	N/A		<u> </u>					DÑA
Toxic Hetals	N/A							
Other Toxics	N/A		(3)		(6)	(6)	(7)	]
COMMENTS:	(1)	(2)	(3)	(4)	(5)	(0)	(7)	2.5

Waste stabilization lagoon system (600 acres) - the assump. is that proj. on 5-yr. needs list is extension of sewer system. Type of Facility Design P.E.

54,000 - 1992 39,008 - 1972] 750 P.E./Yr. Qinc - 075 MGD/Yr. BOD stream = 37.50 #/day Present P.E.

@ 25 mg/1, BOD to stream - 37.50

Effluent Requirements 1. 25 mg/1 BOD - 1995 #/day

2. 30 mg/1 SS

\*BOD in Stream (Cap) 2400 #/day BOD from plant

1973 . 1974 1976 2043.6 #/d. 2088#/d.  $21\overline{33} \# /d$ .  $21\overline{75} \#/d$ . 2028 #/d. 2087#/d. 2102 #/d. 2145 #/d.

3. SS will follow the same pattern, just factor figures.

Type Sewer ( Separate)

RIVER PASIN <u>Red</u>
Wash Mater SOURCE <u>Grand Forks Air F</u>orce Base

TABLE I

RI	YER	HILE	298	Red

P!/Pil 2.5/7					·	Total Commits	Total Reduction	7 PV
	Present	Pres. Reduc. Heq'd	FY 72 Commits	Y 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	1
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	1
Flow, MGD	3.3							
PH	N/D							
Temp, °F	N/D							
B0D <sub>5</sub>	537 #/day	0	0	0	0*			1.0
TDS	N/D							.5
TSS	630 #/day	0	0	0	0*			1.0
ин3-и	N/D							
Org-N	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							ı
Total Co <b>l</b> i.	N/D							
Grease & Oil	N/A							DNA
Toxic Hetals	N/A							
Other Toxics	N/A	/3)		4	(5)	/6\	<u></u> ]	
COMMENTS	(1)	(2)	(3)	(4)	(5)	(5)	( / )	2.5

COMMENTS:

Type of Facility - Waste stabilization lagoon system (total 80 acres). Design P.E. Present P.E. 10500 Anticipate no future increase in population.

10500

Effluent Requirements
1, 25 mg/l - BOD (684#/day)

2. 30 mg/l - SS (825#/day)
3.

Type Sewer (@ambxnedxox Separate)

CODE 1

\*Population increases assumed to be constant.

RILLR BASIN Red

MASTERATER SOURCE Hillsboro

TABLE I

RIVER MILE 319 - confluence with R.R. of North & Goose

PV/PN 2.5/7	- confluence with	R.K.OT NORTH & GOOS	Se .			Total Commits	Total Reduction	_PV
	Present	Pres. Reduc. Reg'd	FY 72 Commits	IY 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	/3 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	-
Flow, MGD	. 36							
PH	N/D							
Temp, °F	N/D							
BOD <sub>5</sub>	66.6 #/day (22.2 mg/1)	0	0	0	Negligible	0	0	1.0
TDS	N/D							.5
TSS	80.1 #/day (26.0 mg/1)	0	0	0	Negligible	0	0	1.0
ин3-и	N/D					:		
Org-N	N/D							
Total-N	N/ D							
Total-P	N/D							
Fecal Coli.	N/ D							
Total Coli.	N/D			ı				
Grease & 011	N/A							
Toxic Hetals	N/A	,						
Other Toxics	N/A	(3)		(4)	(5)	(6)	(7)	2.5
COMMENTS	(1)	(2)	(3)	(4)	(3)	(0)	\' /	2.5

COMMENTS:

Type of Facility - 2 cell waste stabilization lagoon system (17 acres)

Design P.E. 2000 - 1990 project

1335 Present P.E.

Effluent Requirements

1. 25 mg/1 - BOD - (75 #/day) 2. 30 mg/1 - SS - (90#/day)

.2% linear increase in population (1960-1970) and pollution load .04#/day BOD5 for FY 73 .05#/day SS for FY 73

Type Sewer (@@@akanedxor Separate)

CODE 1

HIBBERT AN Red

TABLE I

MASHILAHIR SCORUL Lisbon

2022 5111 441 - confluence of R.R. of North & Shevenne R.

P7/PH 2.5/7	441 - confluenc	ce of R.R. of North &	Sneyenne R.			Total Commits	Total Reduction	P۷
-	Present	Pres. Reduc. Deq'd	FY 72 Commits 73 74 75 76	IY 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	-
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	†
Flow, MGD	.18							
РН	N/D							
Temp, °F	N/D							
BOD5	99.0 #/day	0	0	0	negligible	0	0	1.0
TDS	(22 mg/1) N/D				1			.5
TSS	108 #/day	0	0	0	negligible	0	0	1.0
14H3-14	(26 mg/1) N/D							
Org-N	N/D							
Total-N .	N/D							
Total-P	N/D							
Fecal Coli.	N/D		!				،	
Total Coli.	N/D							
Grease & Uil	N/A							
Toxic Hetals	N/A							
Other Toxics	N/A						7-3-	۰
CONTENTS	(1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

COMMENTS:

Type of Facility - Waste stabilization lagoon system (est. 22 acres) no data available).

Design P.E. - 2500 ] 1,938 #/day - BOD to stream Qinc/day/yr - .21 MGD BOD inc./yr to stream = 1.938# but inc. in Q = .21 MGD Present P.E. - 1800 ] 1,938 #/day - BOD to stream Qinc/day/yr - .21 MGD BOD inc./yr to stream = 1.938# but inc. in Q = .21 MGD .25 mg/l BOD eff. std. is not violated (increase = 1 mg/l) Effluent Requirements

2. 30 mg/1 - SS - (135#/day) 3.

CODE 1

i. 25 mg/l - BOD - (111 # / day)

TABLE I

RIVER BASIN Red.
WASTLWATER SOURCE Park River (City)
RIVER BILE 220 - confluence of Red River and P.R.

RITER MILE 220	<ul> <li>confluence of</li> </ul>	Red River and P.R.				Total Commits	Total Reduction	1 54
PV/PN 2.5/7	Present	Pres. Reduc. Reg'd	FY 72 Commits 73 74 75 76	IY 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5) 73 74 75 76	PV
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	73 74 73 70	
Flow, MGD	.51							
PH	N/D							
Temp, °F	N/D					0	0	1.0
BOD <sub>5</sub>	105 #/day (25 mg/l)	0	0	0	0	0	U	.5
TDS	N/D					0	0	1.0
TSS	123 #/day (29 mg/l)	0	0	0	0	0	U	
N13-11	N/D							
Org-N	N/D							
Total-N	N/D							
Total-P	N/ D							
Fecal Coli.	N/ D							
Total Colı.	N/D							
Grease & Oil	N/A							
Toxic Hetals	N/A							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

COMMENTS.

Type of Facility - 1-acre aerated cell followed by a 20-acre cell and a 10-acre cell. Design P.E. - 3500 - (1990 popl proj. = 2200) Expected Increase  $\simeq$  0 Present P.E. - 1750

Effluent Requirements

1. 25 mg/1 - BOD - (105#/day) 2. 30 mg/1 - SS - (127.5 #/day) 3.

RIVER BASIN \_\_ Red\_ WASTEMATER SOURCE Pembina TABLE I

WASTEMATER SOURCE RIVER HILE 158_	L_Pembina	<del></del>					Total Commits	To	tal Re	educti	on	i DV
PV/PN 2.5/7			EV 72 Commits	1 Y 73, 74 Commits	Expected 73 74	Incr.	(3) + (4)		(2)	+ (5		PV
Waste Parameter	Present Load	Pres. Reduc. Req'd to Meet EPA Obj.	FY 72 Commits 73 74 75 76	73 74 75 76	73 74	75 76	73 74 75 76	73	74	75	<u>76</u>	
Flow, MGD	.18											
PH	N/D											
Temp, °F	N/D					05 05		0	0	0	0	1.0
B0D <sub>5</sub>	35.7 #/day (24 mg/1)	0	0	0	. 25	.25 .25			O	Ū	· ·	.5
TDS	N/Ď				25 25	.25 .25		0	0	0	0	1.0
TSS	42 #/day (28 mg/l)	0	0	0	.25 .25	.25 .25						
NH3-N	N/D											
Org-11	N/D											1
Total-N	N/D											i
Total-P	N/D											
Fecal Coli.	N/D											
Total Coli.	N/D								,			
Grease & Oil	N/A											
Toxic Metals	N/A											
Other Toxics	- N/A	(2)	(3)	(4)	(5)		(6)			7)		2.5
	(1)	(2)	(-/				CODE 1					

COMMENTS:

Type of Facility - Waste stabilization lagoon system (23 acres)
Design P.E. - 2300
Present P.E. - 700

Effluent Requirements 1. 25 mg/l BOD - 37.5 #/day

2. 30 mg/1 SS - 450 #/day

3.

Population increased 1.8% per year during 1960-1970 decade. Assume expected increase  $\simeq$  0.

CODE 1

84324 WYAN Red

Service Red Wahpeton

RIVER MILE 549 Red

PV/PR 2.5/7	y Reu	<del></del>														Total (	Commi	ts_	Tot	al Re	duct	ion	
	Present	Pres. Reduc. Prg'd	F	772 ( 74	Commi	ls.	Y	73 <u>,</u> 74	Conn	iits	Ex	pecto	d In	cr.		_\	+ (4			(2)	+ (	5)	
Waste Parameter	Load	to Meet EPA Obj.	73	74	75	76	7/3	74	75	76	73	74	75	76	73	74	75	76	73	74	75	76	PV
Flow, MGD	3.0																						
РН	N/D														}								
Temp, °F	N/D																						
BOD <sub>5</sub>	2091 #/day	1467 #/day	0	1467	0	0						negl	igibl	e	0	1467	0	0	1467	0	0	0	1.0
TDS	N/D		ļ				İ																.5
TSS	2510 #/day	1760 #/day	0	1760	0	0						negl	igibl	e	0	1760	0	0	1760	0	0	0	1.0
ш13-ш	N/D																						
Org-il	N/D		   							{													
Total-N	N/ D																					,	
Total-P	N/D																						
Fecal Coli.	N/D																						
Total Coli.	N/D																						
Grease & Uil	N/A																						
Toxic Hetals	N/A																						
Other Toxics	N/A (1)	(2)		(3)			<del></del>	(4)				(5)				(6)			L	(7	,		2.5
COMMENTS.	(1)	(4)		(3)				(4)				(3)				(0)				` ` '	,		

TABLE 1

COMMENTS:

Type of Facility - aerated lagoon followed by waste stabilization lagoon system (70 acres).

Design P.E.

- 10400 (overloaded, Population - 7000 - present lagoon capacity)] .340 P.E./Yr. inc. = 17.4#/day to stream BOD Q/Yr. - .09 Present P.E. Effluent Requirements BOD inc. = neq.

1. 25 mg/l BOD - (624 #/day)

2. 30 mg/1 SS - (750 #/day)
3.

CODE 1

RIVER BASIN Red

WASTEWATER SOURCE Walhalla

RIVER MILE 196 confluence with Pembina and Red River of North

Total Commits Total Reduction PV/PN 2.5/7 FY 72 Commits FY 73, 74 Commits Expected Incr. (3) + (4)(2) + (5)Pres. Reduc. Reg'd Present 73 74 75 76 75 to Meet EPA Obj. 73 74 75 76 73 74 75 76 73 74 75 76 73 , 74 Waste Parameter Load Flow, MGD .39 PH 1 N/D Temp, °F N/D 0 none needed 1.0  $BOD_5$ 75.0 #/day 0 . 0 0 .25 .25 .25 . 25 (23 mg/1).5 TDS N/D 1.0 0 0 0 .30 .30 .30 .30 0 none needed TSS 88.5 #/day (27 mg/1) $NH_3-N$ N/D Org-N N/D N/D Total-N Total-P N/D Fecal Coli. N/D N/D Total Coli. N/A Grease & Oil N/A Toxic Hetals N/A Other Toxics (5) (6) (7) (1)(2) (3) (4) 2.5

TABLE I

### COMMENTS:

Type of Facility - Two-cell waste stabilization lagoon (18.9 acres)

Design P.E. - 2460 Present P.E. - 1471

Effluent Requirements

- 1. 25 mg/1 BOD (81 #/day)
- 2. 30 mg/1 SS (97.5 #/day)

3.

CODE 1

.3% population increase per year during 1960-1970.

TABLE I

KIMI'S SECTION Red True MATER SOURCE West Fargo-Sheyenne River

alvia fille <u>st</u>	neyenne 23.1					T 1 1 0 '.	T 1-1 D. J	
P√/PH 2.5 <u>/7</u>	Future project co	onsists of the addit	ion to the sewer sys	tem.	Tunnahad Tana	Total Commits	Total Reduction	7 50
Waste Parameter	Present Load	Pres. Reduc. Req'd to Meet EPA Obj.	FY 72 Commits 73 74 75 76	1 Y 73, 74 Commits 73 74 75 76	Expected Incr. 73 74 75 76	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	(2) + (5) 73 74 75 76	PV
waste rarameter	Luau	to neet Ery Obj.	73 74 73 70	13 74 73 70	73 74 73 70	75 74 75 70	73 74 70 70	1
Flow, MGD	3.42							
PH	N/D							
Temp, °F	N/D							
BOD <sub>5</sub>	302.1 #/day	0	0	0	negligible	0	0	1.0
TDS	<b>N</b> /D							.5
TSS	354.0 #/day	0	0		negligible	0	0	1.0
ин3-и	N/D							
Org-N	N/D							
Total-N	N/D							
Total-P	N/ D							
Fecal Coli.	N/D							
Total Coli.	N/D							
Grease & Oil	N/A						,	DNA
Toxic lietals	N/A							r
Other Toxics	N/A					<i>(</i> 2)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

Type of Facility - Waste stabilization lagoons (168 acres).

Design P.E. - 24,609 (6,759 domestic + 17,850 industrial). Q due to population.

Present P.E. - 5929

Present P.E. - 5929 Effluent Requirements

1. 25 mg/l - BOD - 711 #/day.

2. 30 mg/1 - SS - 855 #/day.

3.

Type Sewer (COMMEXAMENTAL)

TABLE I

RIVER BASIN Red HASTEMATER SCURCE Valley City (New project is for the con-

RIVER HILE 248.	O Sheyenne	struction of f	orce M.			Total Commits	Total Reduction	
PV/PH 2.5/7		and lift stati Pres. Reduc. Req'd	on) FV 72 Commits	FY 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	PV
Waste Parameter	Present Load	to Meet EPA Obj.	FY 72 Commits 73 74 75 76	/3 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	
Flow, MGD	2.13	:						
PH	N/D							
Temp, °F	N/D						0	1.0
B0D <sub>5</sub>	399 #/day (23 mg/l)	0	. 0	0	0	0	0	.5
TDS	N/D						0	1.0
TSS	469.5 #/day (27 mg/1)	0	! 0 	0	0	0		1.0
ин3-и	N/D							
Org-II	N/D	}						
Total-N	N/D					į		
Tota1-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/D							
Grease & Ull	N/A						·	
Toxic Hetals	N/A							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5
COMMENTS	. ,	• •						

COMMENTS:

Type of Facility - 3 cell waste stabilization lagoon (117 acres)

13800 7843 ] 297 PE/Yr. BOD to system = 15.15 #/day/year Qin - .09 BOD to stream/y - 22 mg/l. Design P.E. Present P.E.

Effluent Requirements

1. 25 mg/l BOD - 444 #/day

2. 30 mg/1 SS - 532.5 #/day 3.

Type Sewer (@xxxxxxxxxxxx Separate)

RIDER FISH Red

MISTELATER SOURCE American Sugar, Moorhead, Minn.

TABLE I

RIVER HILE <u>438 r</u> PV/PN 7/2	eu	<del></del>				Total Commits	Total Reduction
Waste Parameter	Present Load	Pres. Reduc. Big'd to Meet EPA Ubj.	FY 72 Commits 73 74 75 76	1 Y 73, 74 Commets 73 74 75 76	Expected Incr. 73 74 75 76	(3) + (4) $73  74  75  76$	(2) + (5) 73 74 75 76
Flow, MGD	10 MGD						
PH	N/D						
Temp, °F	N/D						
B005	118,000						
TDS	N/D						
TSS	12,500						
NH3-11	N/D						
Ong-il	N/D						
Total-N	N/D						
Total-P	N/D						
Fecal Coli.	N/D						
Total Coli.	N/D						
Grease & Oil	N/A						,
Toxic Hetals	N/A						
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)

## COMMENTS:

Type of Facility
Design P.E.
Present P.E.
Effluent Requirements

1. 2. 3.

Type Sewer (Combined or Separate)

Region V is responsible for Administering EPA programs in Minnesota.

HIMP BASH Red
HIMPOPALER SOURCE American Crystal, Crookston, Minn.
RIVER HILE 53 Red Lake

TABLE I

NIVER TILE 53 F	Red Lake														Commit	s	Tot		ductio	
)	Present	Pres. Reduc	l'eq'd	FY 7	72 Commits		Υ /3,	74 Comm1	ts	Expe	cted Ir	icr.	73	(3) 74	+ (4) 75	76	73	(2) 74	+ (5) 75	76 PV
Waste Parameter	Load	to Meet EP/	\ 05 <b>J</b> .	73 7	74 75 76	2	3 74	75	/6	73	74 75	. / 0	/3			70	/3	. / 4		70
Flow, MGD	5 MGD																			
РН	N/D												İ							
Temp, °F	N/D																			
B005	125,000 #/d.																			3.0
TDS	N/D			•					ĺ											.5
TSS	25,200 #/d.																			3.0
ин3-и	N/D																			
Org-H	N/D																			
Total-N	N/D								Ì											
Total-P	N/ D					[														.5
Fecal Coli.	N/D								ŀ											
Total Coli.	N/D																			
Grease & Uil	N/A																			
Toxic Metals	N/A																			
Other Toxics	N/A													76				73		7.0
	(1)	(2)		(	(3)		(4	}		(	5)			(6)		•		(7)	,	,.0

COMMENTS:

Type of Facility - Design P.E.

Region V is responsible for administering EPA programs in Minnesota.

Present P.E.

Effluent Requirements

1. 2.

3.

RIVER BASIN Red MASTEWATER SOURCE American Crystal-E. Grand Forks, Minn.

TABLE I

RIVER MILE 293 F	Red					Total Commits	Total Reduction
PV/PN 7/2	Present	Pres. Reduc. Reg'd	FY 72 Commits	FY 73, 74 Commits	Expected Incr.	(3) + (4)	$\frac{(2) + (5)}{72} \frac{PV}{76}$
Waste Parameter	Load	to Meet EPA Obj.	FY 72 Commits 73 74 75 76	/3 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76
Flow, MGD	4.5				•		
РН	N/D						
Temp, °F	N/ D						3
_ BOD <sub>5</sub>	<b>7</b> 5,000 #/day		-				
TDS	N/D				,		.5
TSS	2600 #/day						3
NH3-N	N/D						
Org-N	N/D						.5
Total-N	N/D						
Total-P	N/D			•			
Fecal Coli.	N/D						
Total Coli.	N/D						
Grease & Oil	N/A						
Toxic Hetals	N/A						
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7) 7.0

## COMMENTS:

Type of Facility
Design P.E.
Present P.E.

Region V is responsible for Administering EPA programs in Minnesota.

Effluent Requirements

1. 2.

RIVER BASIN Red

WASTEWATER SOURCE Ada, Minnesota RIVER MILE Marsh River-Red

Total Reduction Total Commits PV/PN 2.577 (2) + (5)(3) + (4)1 Y 73, 74 Commits Expected Incr. Pres. Reduc. Req'd FY 72 Commits Present 74 75 76 73 74 75 76 73 74 75 73 74 /5 76 73 74 75 76 73 to Meet EPA Obj. Load Waste Parameter Flow, MGD .186 N/D PH Temp, °F N/D 0 1.0 0 0 0 0 0 35#/day B0D5 .5 N/D TDS 0 1.0 0 0 0 0 0 41#/day TSS 41 N/D NH3-N N/D 0rg-N N/D Total-N N/D Total-P N/D Fecal Coli. N/D Total Coli. DNA N/A Grease & Oil N/A Toxic Hetals

(4)

TABLE I

COMMENTS:

Type of Facility - Secondary TF

N/A

(1)

(2)

 $\frac{4600}{1860}$  ] based on BOD increase = hydraulic increase - there  $\frac{1}{1}$ s no expected increase in loading to stream. Design P.E. Present P.E.

(3)

Effluent Requirements

1.  $39 \# / \text{day BOD}_5$  (25 mg/1)

2. 47#/day TSS (30 mg/1) 3.

Other Toxics

Type Sewer (Combined or Separate)

CODE 1

(5)

(6)

(7)

2.5

TABLE I

PIMER MAJIH Red WASH WATER SOURCE Bagley, Minnesota RIVER MILE Clearwater - Red Lake

RIVER HILL Clear	water - Red Lake	2				Total Commits	Total Reduction	T 01/
PV/PN 2.5/7	Present	Pres. Reduc. Neg'd	FY 72 Communts	73 74 Commits 75 76	Expected Incr. 73 74 75 76	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(2) + (5) 73 74 75 76	PV
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 73 70	73 74 75 75			
Flow, MGD	.13							
PH	N/D							
Temp, °F	N/D						0	1.0
BOD5	26 #/day	0	0	0	0	0	0	.5
TDS	N/D					_		1.0
TSS	30 #/day	0	0	0	0	0	0	1.0
NH3-N	N/D							
Org-N	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/D							DAIA
Grease & Uil	N/A							DNA
Toxic Hetals	N/A							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

### COMMENTS:

Type of Facility - Secondary Trickling Filter
Design P.E. 1300

Present P.E. 1250

Effluent Requirements

1. 27#/day BOD 2. 32#/day SS

Type Sewer (Combined or Separate)-Information not available

CODE 1

RIVER DASIN <u>Red</u> WASTEMATER SOURCE Bainesville, Minn.

TABLE I

READ THE PATENT	DOLLIESALLE THIMT
RIVER HILE	Willow-Deerhorn-Buffalo-Red

RIVER HILE Will	<u>Bainesville, M</u> ow-Deerhorn-Buf	inn. falo-Red				Total Commits	Total Reduction	
PV/PN 2.5/7			FV 72 Commute	I Y 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	PV
Waste Parame <b>ter</b>	Present Load	Pres. Reduc. keq'd to Meet EPA Obj.	FY 72 Commits 73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	-
Flow, MGD	.15							
РН	N/D							
Temp, °F	N/D							1.0
B0D <sub>5</sub>	30 #/day	0	0	0	0	0	0	.5
TDS	N/D							1.0
TSS	35 #/day	0	0	0	0	0	0	]1.0
NH3-N	N/U							
Org-N	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Colı.	N/D							
Total Coli.	N/D							DNA
Grease & Uil	N/A							DIVA
Toxic Hetals	N/A							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5
COMPUTS	( · /	` ·						

Type of Facility - Secondary Activated Sludge
Design P.E. - 1560
Present P.E. - 1480

Effluent Requirements

1. 31#/day BOD

2. 37#/day SS 3.

Type Sewer (Combined or Separate) - Information not available

RIVER BASIN Red WASH-MATER SOURCE Breckenridge, Minn. RIVER MILE Red River

TABLE I

RIVER MILE Red F	River					Total Commits	Total Reduction	
PV/Pit 2.5/7		To Dil the lat	EV 72 Courats	FY 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	
Waste Parameter	Present Load	Pres. Reduc. Peq'd to Meet EPA Obj.	FY 72 Commits 7-3 74 75 76	73 74 75 76	Expected Incr. 73 74 75 76	73 74 75 76	73 74 75 76 PV	
Flow, MGD	. 35							
РН	N/D							
Temp, °F	N/D							_
BOD <sub>5</sub>	70 #/day	0	0	0	0	0	0 1.	
TDS	N/D			1				.5
TSS	86 #/day	0	0	0	0	0	0 1.	U
ин3-и	N/D							
Org-N	N/D			<u> </u> 				
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D		•					
Total Coli.	N/D						DA	иΔ
Grease & Oil	N/A							171
Toxic Hetals	N/A							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7) 2.5	ō

COMMENTS:

Type of Facility - TF Design P.E. 5000 Present P.E. 3800 Effluent Requirements

1. 73 #/day BOD<sub>5</sub> 2. 88264 #/day SS 3.

PIMER BASIN Red

TABLE I

WASTLWATER SOURCE	E Crookston, Mir	<u>in.</u>						
RIVER MILE Red	Lake River-Red F	River 53				Total Commits	Total Reduction	1
PV/PN 2.5/7 Waste Parameter	Present Load	Pres. Reduc Req'd to Meet EPA Obj.	FY 72 Commits 73 74 75 76	1	Expected Incr. 73 74 75 76	(3) + (4) 73 74 75 76	(2) + (5) 73 74 75 76	<u>PV</u>
Flow, HGD	2.31							
РН	N/D							
Temp, °F	N/D							, ,
BOD <sub>5</sub>	450 #/day	0	0	0	0	0	0	1.0
TDS	N/D					_	9	.5
rss	525 #/day	0	0	0	0	0	0	1.0
NH3-N	N/D							
0rg-11	N/D							
Total-N	N/D							
Total-P	N/D							i
Fecal Coli.	N/D							
Total Coli.	N/D							DNA
Grease & Uil	N/A							, D,
Toxic Hetals	· N/A							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

COMMENTS:

Type of Facility - Secondary stabilization pond.

Design P.E. - 14,394

Present P.E. - 7,700

Effluent Requirements

1. 480 #/day BOD

2. 570 #/day SS

3.

Type Sewer (Contant And XXXX Separate)

RIVER BASIN Red

ota

TABLE 1

WASTEWATER	SCURCE E.	Grand	forks,	Minneso
DIMED MILE	Pad Pivo	r 29 3		

RIVER MILE Red F PV/PH 2.5/7	River 29.3	<del></del>				Total Commits	Total Reduction	·
PV/141 2.3/1	Present	Pres. Reduc. Reg'd	FY 72 Counts 73 74 75 76	TY 73, 74 Commits	Expected Incr. 73 74 75 76	(3) + (4) $73  74  75  76$	(2) + (5) 73 74 75 76	PV
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 75 76	73 74 73 70	75 77 75	ĺ
Flow, MGD	2.25							
PH	N/D							İ
Temp, °F	N/D							
8005	20.5 mg/l 387 #/day	0	0	0	0	0	0	1.0
TDS	N/D							.5
TSS	25 mg/l 465 #/day	0	0	0	0	0	С	1.0
ин3-и	N/D	Ĭ	-					
Org-N	N/D		-					
Total-N	N/D							
Total-P	N/D							I I
Fecal Coli.	N/D							
Total Coli.	N/D						,	Lawa
Grease & Oil	N/A							DNA
Toxic Hetals	N/A							
Other Toxics	N/A	(2)	(3)	(4)	(5)	(6)	(7)	2.5
	(1)	141	(3)	<b>,</b> ,	•			

#### COMMENTS:

Type of Facility - 2nd Stabilization Pond

Design P.E. - 14000 ] The effluent quality should remain the same assuming that the BOD increases at a rate Present P.E. 7600 of 17#/c/d and the hydraulic flow increases at a constant rate (100 g/d/c) Effluent Requirements

<sup>1. 25</sup> mg/l - 468#/day 2. 30 mg/l - 561#/day 3.

RIVER BASIN

RIVER BASIN Ked
WASHINGTON SOURCE Fosston, Minn.

TABLE I

POPLAR RIVER -Sand Hill-Red River

KIALK HILL Lobis	ar Kiver-Sand Hi	ill-ked River				Total Commits	Total Reduction	
PV/Pil2.5/7	Present	Pres. Reduc. Roq'd	TEY 72 Commuts	F TY 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	]
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	1
Flow, MGD	8.19							
PH	N/D							
Temp, °F	N/D							
BOD <sub>5</sub>	858 #/day	0	0	0	0	0	0	1.0
TDS	N/D				 			.5
TSS	1395 #/day	0	0	0	0	0	0	1.0
NH3-N	N/D							
Org-N	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/D							
Grease & Oil	N/A							DNA
Toxic Hetals	N/A		}					
Other Toxics	N/A	(2)	(3)	(4)	(5)	(6)	(7)	] 2.5
0011151176	(1)	(2)	(-/	• •				

#### COMMENTS:

Type of Facility - 2nd Trickling Filter, waste stabilization ponds.

- 27,000 Population increase to BOD and SS loading or 12,443 be offset by increase in hydraulic loading. Population increase to BOD and SS loading of stream will Design P.E.

Present P.E.

Effluent Requirements

1. 25 mg/l 1710#/day

2. 30 mg/1 2070 #/day

Type Sewer (Combraned xxx Separate)

REVER MAGIN Red WASHLWATER SOURCE Fosston, Minn. RIMER HILD Poplar River-Sand Hill-Red River

TABLE I

PY/PN 2.5/7	r River-Sand Hil				4	Total Commits	Total Reduction	
	Présent	Pres. Reduc. 1'eq'd	FY 72 Commits 73 74 75 76	1 Y 73, 74 Commits 73 74 75 76	Expected Incr. 73 74 75 76	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(2) + (5) 73 74 75 76	<u> PV</u>
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 73 70	73 74 73 70	73 74 73 70	+
Flow, MGD	1.45							
РН	N/D							
Temp, °F	N/D							
B0D <sub>5</sub>	9000 #/day	8700 #/day		8700 #/day		8700 #/day	8700 #/day	1.0
TDS	N/D							.5
TSS	10500 #/day	10136 #/day		10136 #/day		10136 #/day	10136 #/day	1.0
11H3-11	N/D							
Org-it	N/ D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/ D			ļ				
Grease & Uil	N/A							DNA
Toxic iletals	N/A							
Other Toxics	N/A						7-1	
COMMENTS -	(1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

COMMENTS:

Type of Facility - Pre-aeration basin followed by WSP, assume 2500 ppm potato waste which makes up .9 MGD (est.)
Design P.E. - 2170 (information very incomplete. This is only estimate. They are
Present P.E. - 1684 | scheduled to do something about 2 x flow overload in 1974).

Design P.E.

Effluent Requirements

1. 25 mg/1 - BOD - 300 #/day

2. 30 mg/1 - 55 - 364.35 #/day

Type Sewer (Konnbunedkom Separate)

RIVER BASIN: Red

MASTEMATER SOURCE Frazee, Minn.
RIVER MILE Otterton-Red

RIVER MILE Otto	erton-Red	<u>·</u>				Total Commits	Total Reduction	
PY/fil 2.5/7			EV 70 C	1 Y 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	<u> PV</u>
Waste Parameter	Present Load	Pres. Reduc. Req'd to Meet EPA Obj.	FY 72 Commits 73 74 75 76	73 74 75 76	Expected Incr. 73 74 75 76	73 74 75 76	73 74 75 76	-
Flow, MGD	.3							
РН	N/D							
Temp, °F	N/D						_	
BOD <sub>5</sub>	60 #/day	0	0	0	0	0	0	1.0
TDS	N/D			-				.5
TSS	69 #/day	0	0	0	0	0	0	1.0
NH3-N	N/D							
Org-N	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D						·	
Total Coli.	N/D						,	
Grease & Oil								
Toxic Hetals								
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

TABLE I

COMMENTS:

Type of Facility - 2nd Stabilization pond
Design P.E. 600

Present P.E.

Effluent Requirements
1. 63 #/day BOD
2. 75 #/day SS

3.

Type Sewer (Grandstances xxxx Separate)

RIJER BASIN Red

TABLE I

WASTEWATER SOURCE Hallock, Minn.

RIVER MILE Mide	lle Fork of Two	Rivers-Red				Total Commits	Total Reduction	-,
PV/PN 2.5/7 Waste Parameter	Present Load	Pres. Reduc. Reg'd to Meet EPA Obj.	FY 72 Commits 73 74 75 76	1 Y 73, 74 Commits 73 74 75 76	Expected Incr. 73 74 75 76	(3) + (4) 73 74 75 76	(2) + (5) 73 74 75 76	<u>PV</u>
Flow, MGD	. 15							
PH	N/D							
Temp, °F	N/D							
BOD <sub>5</sub>	30 #/day	0	0	0	0	0	0	1.0
TDS	N/D							.5
TSS	35 #/day	0	0	0	0	0	0	1.0
ин <sub>3</sub> -и	N/D							
Org-N	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/ D							
Total Colı.	N/D							
Grease & Oil	N/A							DNA
Toxic Hetals	N/A							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	] 2.5

#### COMMENTS:

Type of Facility - 2nd trickling filter

Design P.E.

Present P.E.

Effluent Requirements
1. 31 #/day BOD

2. 37 #/day SS

3.

Type Sewer ( CONDENDED X Separate)

RIVER BASIN Red WASTEWATER SOURCE Mahnomen, Minn. TABLE I

RIVER MILE Wild Rice River-Red Total Reduction Total Commits PV/PN 2.5/7 Expected Incr. (3) + (4)(2) + (5)IY 73, 74 Commits FY 72 Commits Pres. Reduc. Rog'd Present 75 76 73 74 75 73 74 75 76 73 74 75 76 73 74 75 76 to Meet EPA Obj. Load Waste Parameter Flow, MGD . 39 РΗ N/D Temp, °F N/D 1.0 78 #/day 0 0 0 0 0 0 BOD<sub>5</sub> .5 TDS N/D 1.0 0 0 TSS 0 0 0 90 #/day 0 NH3-N N/D Org-N N/D Total-N N/D Total-P N/D Fecal Coli. N/D Total Coli. N/D DNA

(4)

(3)

COMMENTS:

Type of Facility - Sec. Stabilization pond.

(1)

(2)

N/A

N/A

N/A

Design P.E. 1500 1300 Present P.E. Effluent Requirements

1. 81 #/day BOD

2. 96 #/day SS

Grease & Oil

Toxic Metals

Other Toxics

Type Sewer (Goindownad xxxx Separate)

CODE 1

(5)

(7)

2.5

(6)

Red F19EB 47.544 WASHIANTE SOURCE Hawley, Minnesota RIVER HILE Buffalo-Red

TABLE T

RIVER HILE Buffa	lo-Red					Total Commits	Total Reduction	
PV/PR 2.5/7		D - D-dvo Lvold	EV 72 County s	FY 73, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	]
Waste Parameter	Present Load	Pres. Reduc. keg'd to Meet EPA Obj.	FY 72 Communts 73 74 75 76	73 74 75 76	Expected Incr. 73 74 75 76	73 74 75 76	73 74 75 76	PV
Flow, MGD	. 39							
PH	N/D							
Temp, °F	N/D							
80D <sub>5</sub>	78 #/day	0	0	0	0	0	0	1.0
TDS	N/D							.5
TSS	90 #/day	0	0	0	0	0	0	1.0
NH3-N	N/D							
Org-II	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/D							
Grease & Uil	N/A							DNA
Toxic Metals	N/A							,
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5
0.0111/51/75	(1)	( )	(0)	` '				

COMMENTS: .

Type of Facility - 2nd Stabilization Pond
Design P.E. 3000
Present P.E. 2500
Effluent Requirements
1. 81 #/day BOD
2. 96 #/day SS

3.

Type Sewer (Continued XXX Separate)

RIVER BASIN Red WASTEWATER SOURCE Moorhead, Minn.

TABLE I

WASTEWATER SOURCE	Moorhead, Minn.					Total Commits	Total Reduction	
RIVER MILE Red	River				5t-d Inch	$\frac{10 \text{ tal Commits}}{(3) + (4)}$	(2) + (5)	PV
PV/PN 2.5/7	Present	Pres. Reduc. Reg'd	FY 72 Commits 73 74 75 76	17 73, 74 Commits 73 74 75 76	Expected Incr. 73 74 75 76	$\frac{(3) + (4)}{73 74 75 76}$	73 74 75 76	1—
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 73 70	75 71 15			
Flow, MGD	2.7							
РН	N/D					0	0	1.0
Temp, °F	816 #/day	0	0	0	0	0	V	.5
BOD <sub>5</sub>	N/D					0	0	1.0
TDS	960 #/day	0	0	0.	0	0		İ
TSS	N/D							
ин3-и	N/D							
Org-N	N/D			1				
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/D							DNA
Grease & 011	N/A							
Toxic Metals	N/A <sub>.</sub>							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

#### COMMENTS:

Type of Facility - Activated Sludge

Design P.E.

75,000 46,000 (including ind. flow) Present P.E. 46
Effluent Requirements

1. 1190 #/day BOD 2. 1420 #/day SS

3.

Type Sewer (Combanded xxx Separate)

Red REMAR BUSIN

WASHINATER SOURCE Pelican Rapids

TABLE 1

RIVER THE Pel	ican River					Total Commits	Total Reduction	T nu
PV/PH 2.5/7 Waste Parameter	Present Load	Pres. Reduc. Req'd to Meet EPA Obj.	FY 72 Commits 73 74 /5 /6	1	Expected Incr. 73 74 75 76	(3) + (4) 73 74 75 76	(2) + (5) 73 74 75 76	<u>PV</u>
Flow, MGD	.15		,					
РН	N/D							
Temp, °F	N/D							
BOD <sub>5</sub>	30#/day	0	0	0	0	0	0	1.0
TDS	N/D							.5
TSS	35 #/day	0	0	0	0	0	0	1.0
ин3-и	N/D							
Org-N	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/D							DNA
Grease & Uil	N/A							DINA
Toxic Hetals	N/A							
Other Toxics	N/A (1)	(2)	(3)	(4)	(5)	(6)	(7)	2.5

COMMENTS:

Type of Facility - 2nd Trickling Filter Design P.E. 1600

Present P.E. 138
Effluent Requirements
1, 31 #/day
2, 37 #/day SS
3. 1350

Type Sewer (Kombumedwork Separate)

RIMIN BASIN <u>Red</u> WASTEMATER <u>SOURCE Roseau, Minn.</u> RIMIR HILE Roseau River-Red in Canada

TABLE I

RIVER HILE Rose	eau River-Red in	Canada				Total Commits	Total Reduction	_1
PV/PN 2.5/7	Present	Pres. Reduc. Reg'd	FY 72 Commits	17 73, 74 Commits	Expected Incr. 73 74 75 76	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(2) + (5) 73 74 75 76	<u> </u>
Waste Parameter	Load	to Meet EPA Obj.	73 74 75 76	73 74 75 76	73 74 75 76	73 74 73 70	75 74 75 76	7
Flow, MGD	. 114						8 8 8 8	
РН	N/D							
Temp, °F	N/D							
80D <sub>5</sub>	120 #/day	0	0	0	0	0	0	1.0
TDS	N/D							.5
TSS	150 #/day	0	0	0	0	0	0	1.0
เพ3-น	N/D							
Org-N	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/D							DNA
Grease & Uil	N/A							אוע
Toxic Metals	N/A							
Other Toxics	N/A	1	(3)	(4)	(5)	(6)	(7)	2.5
	(1)	(2)	(3)	<b>V</b> · /	• •			

COMMENTS:

Type of Facility - Primary Imhoff Design P.E. 3500

2300 Present P.E.

Effluent Requirements

1. 237 #/day BOD

2. 285 #/day SS 3.

Type Sewer (Coxxix med xxx Separate)

TABLE I

REMOR BASIN Red WASTEWATER SOURCE Red Lake Falls, Minn.

$\frac{\text{PV/PR}}{2.5/7}$ 2.5/7 (2) + (3) + (4) (2) +	t10n
Waste Parameter         Fresent Load         Fresent to Meet EPA Obj.         73 74 75 76         73 7	(5)
PH N/D Temp, °F N/D BOD5 51 #/day 0 0 0 0 0 0	76 PV
Temp, °F N/D 0 0 0 0 0 0	
BOD <sub>5</sub> 51 #/day 0 0 0 0 0	
BOD <sub>5</sub> 51 #/day 0 0	
TDS N/D	1.0
	.5
TSS 63 #/day 0 0 0 0 0	1.0
NH <sub>3</sub> -N N/D	
Org-N N/D	
Total-N N/D	
Total-P N/D	
Fecal Coli. N/D	
Total Coli. N/D	D.114
Grease & 911 N/A	DNA
Toxic Netals N/A	
Other Toxics $N/A$ (1) (2) (3) (4) (5) (6)	2.5

COMMENTS:

Type of Facility WSP - secondary Design P.E. 1700

Design P.E. Present P.E.

Effluent Requirements
1. 87 #/day BOD'
2. 105 #/day SS

PAYOR FACIN Red WY HAVOR SOURCE Thief River Falls RIVER BLLE Red Lake River-Red River

TABLE 1

RIVER HILL Red L						Total Commits	Total Reduction	
P7/PN 2.5/7	Present	Pres. Reduc. Peq'd	FY 72 Commits	IY /3, 74 Commits	Expected Incr.	(3) + (4)	(2) + (5)	
Waste Parameter	Load	to Meet EPA Obj.	FY 72 Commits 73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	73 74 75 76	-PV
Flow, MGD	.65							
PH	N/D							
Temp, °F	N/D							
BOD <sub>5</sub>	130 #/day	0	0	0	0	0	0	1.0
TDS	N/D							.5
TSS	152 #/day	0	0	0	0	0	0	1.0
NH3-11	N/D							
Org-N	N/D							
Total-N	N/D							
Total-P	N/D							
Fecal Coli.	N/D							
Total Coli.	N/D							DNA
Grease & Oil	N/A							DNA
Toxic Hetals	N/A							
Other Toxics	N/A		(3)	(4)	(5)	(6)	(7)	ᆜ 2.5
601W5NT6	(1)	(2)	(3)	\7/	(0)	• •		

COMMENTS:

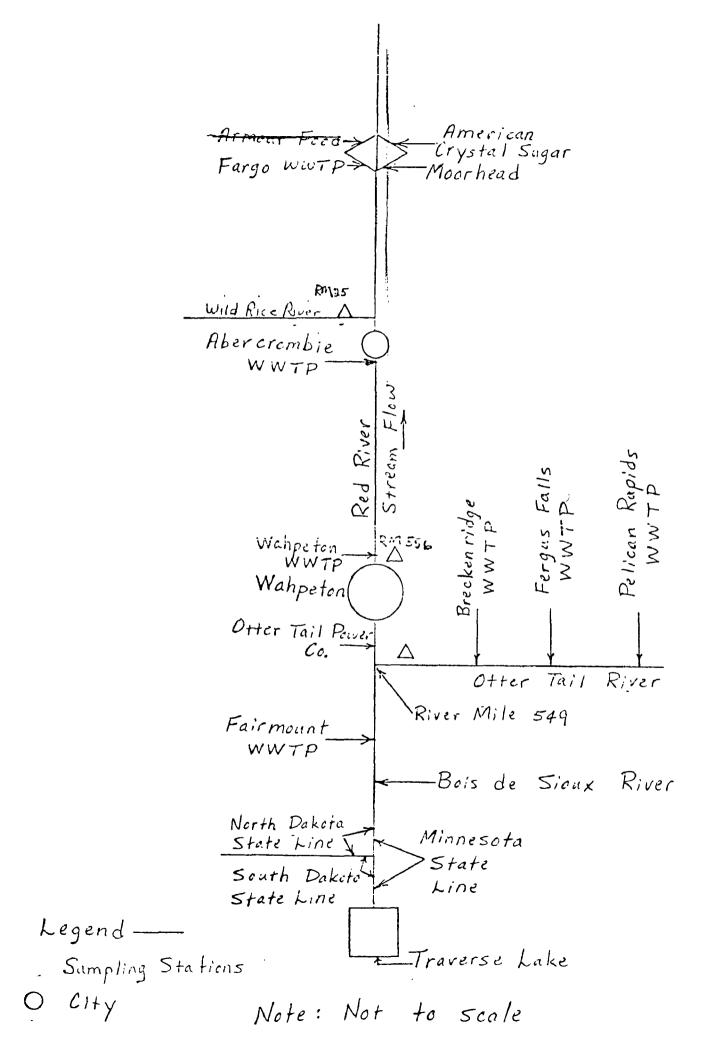
Type of Facility - 2nd Trickling Filter Design P.E. 12800

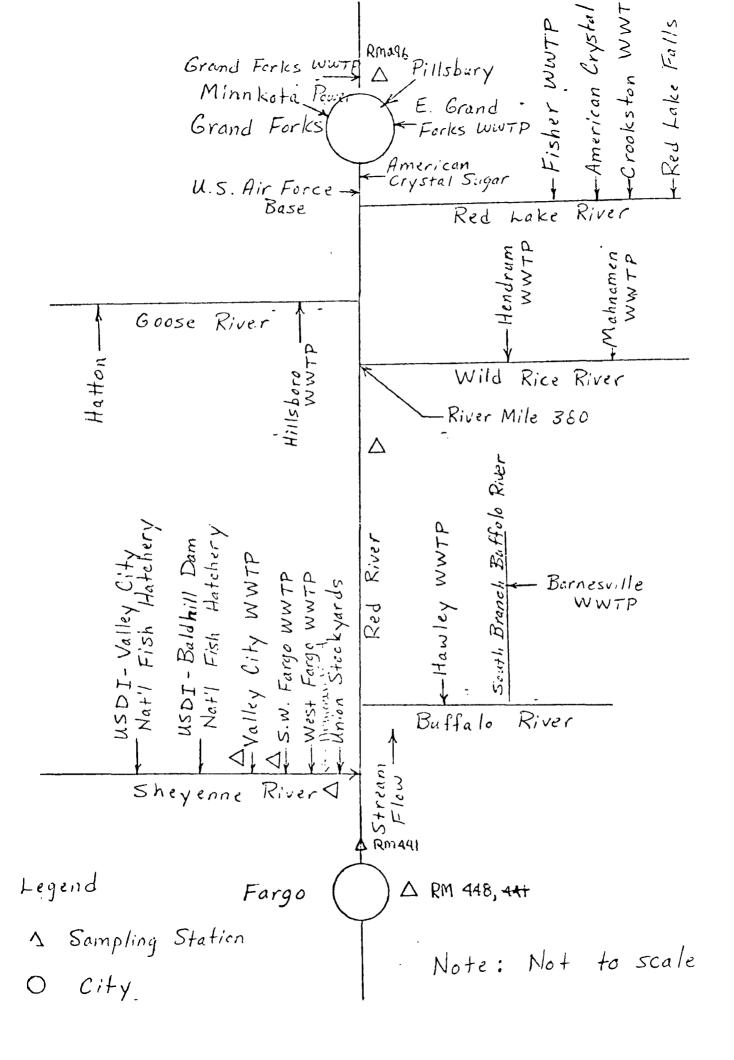
Present P.E. 10700

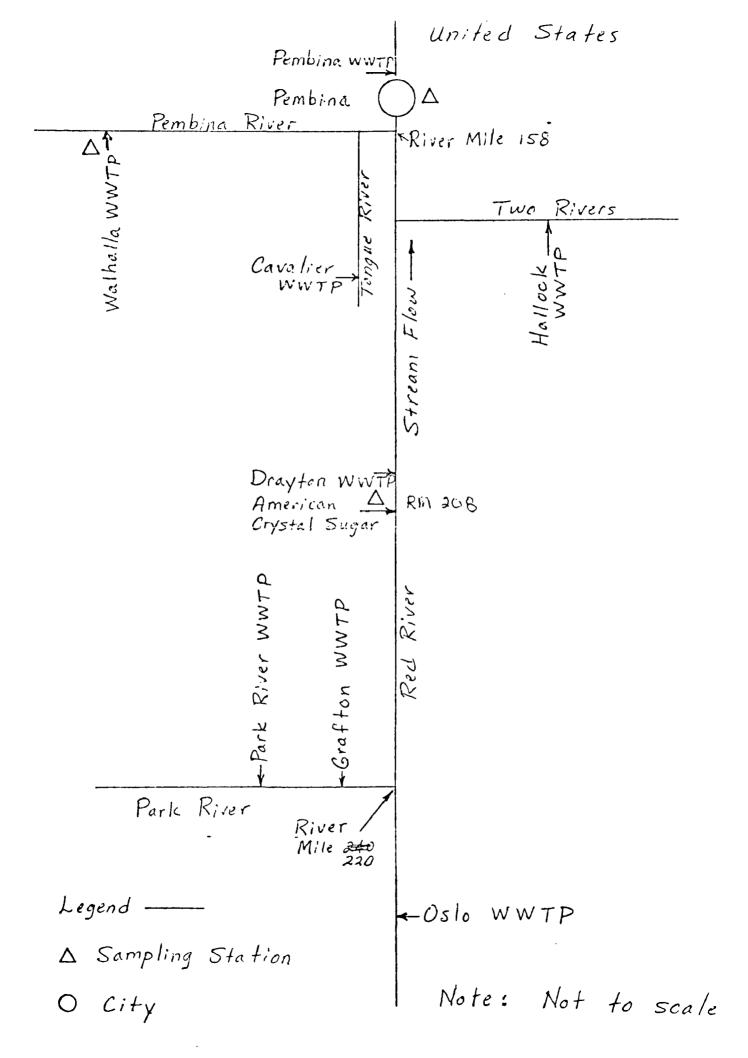
Effluent Requirements
1. 135 #/day BOD
2. 162 #/day SS

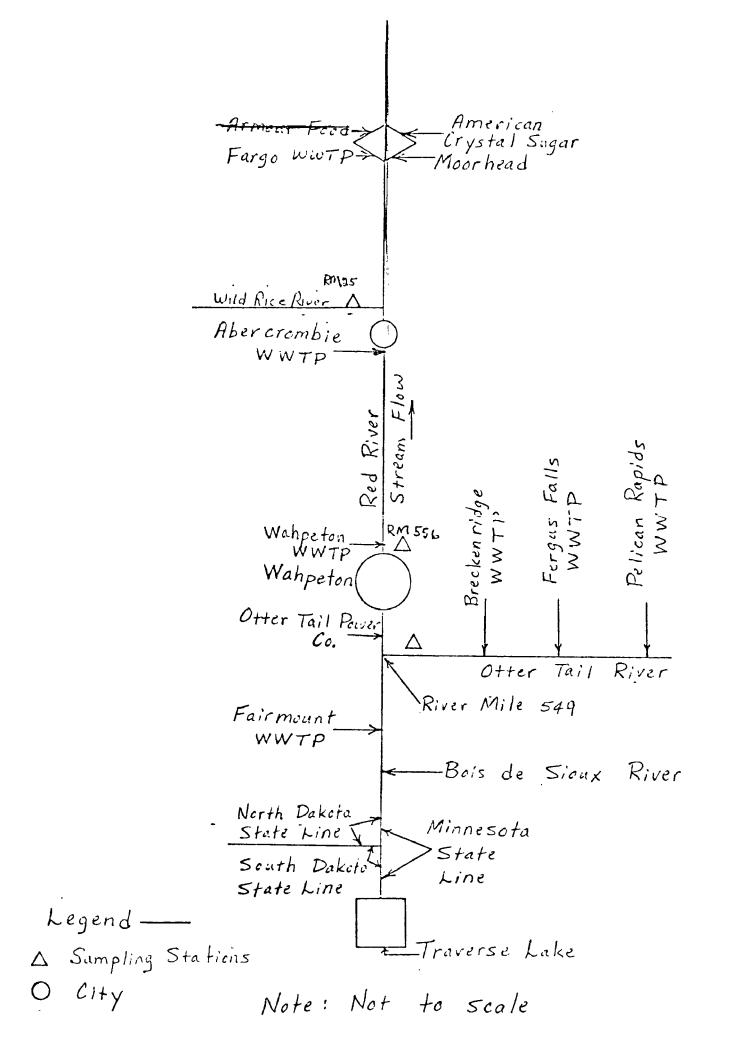
3.

Type Sewer (Commbranced xorx Separate)









# POLLUTION SOURCES WITH PV ≥ 3

		PV
1.	American Crystal Sugar (Drayton)	9.0
2.	Armour Food - Fargo	7.0
3.	American Crystal Sugar, Crookston	7.0
4.	American Crystal Sugar, Moorhead	7.0
5.	American Crystal Sug, E. Grand Forks	7.0
6.	Fargo WWTP - Fargo	6.5
7.	Union Stockyards - West Fargo	6.0
8.	Fargo Water Filtration Plant (Fargo)	5.0
9.	Minnkota Power Corp. (Grand Forks)	5.0
10.	Otter Tail Power Co. (Wahpeton)	5.0
11.	Pillsbury Corp - Grand Forks	3.0

### SECTION E

Ambient W.Q. Status

TON VIII	CALES	KDAR YEAR 19 72_		DATE SCOMMIES Sep. 1972					
PACED BY_Terry L. And	erson .	General Engineer	· · · · · · · · · · · · · · · · · · ·	TEL					
אנטינים פּאַ:	ame}	(Yitle)	<del></del>	(initials)					
AREA	POPULATION		RIVER MILES OR ANI EQUIVALENT FOR LAN ESTUARIES, ETC.	EA ES,					
		MEETS STANDANDS (MILES AND/OR AREA)	(MILES AND/OR	Dasin totals (Mil.) Enventales	ES AMO/OR AREA)  AREA IN Total Basin				
TOTALS: - FRIEDITY BASINS FIL REGION		RAZNI	AREA)						
Red River mainstem only Sheverne Tributary		152 280	240 25	392 305					
Red Lake Tributary Park Tributary		120 70	53 . 15	- 173 85					
	ND 247,000 Minn.261,000 Tot. 508,000	622*	333*	955*	ND 19170 Sq.Mi. Minn. ≈ 1/2 total co total = 38340 sq;				
*Estimates - also exclud	de all tributaries	where a water poi	ution problem was	s not detected.	P _ OF				

#### Red River of the North Basin

#### Data from STORET .

	<del></del>					BA: IC F	PARAMETERS	- MG/L WHE	RE APPLICAB	LE			
	FLOW	РН	XXXX °C	DO .	TDS	TS 3	MI3-103	TOTAL P	AN VALUE ONI (FECAL) (TOTAL) PACT.	CREASE & OIL	TOXIC METALS mg/l	BOD 5-Day	STDS. BASE FLOW
Bois De Sioux River 68-72  RAI 556  Wahpeton 380012 (ND)		6.8 8.0 8.7	0.0 9.6 29.0	5.2 9.9 13.5	200 452 1055	_	-	-	44 MFM-FCBF 3382 MFIMEN	R - NDO	light	1.5 3.9 10.6	
Red River <i>RM556</i> (69-72 05051510 Wahpeton (EPA-USGS)	15 442 2000	6.0 8.1 8.9	0.0 9.5 27.0	5.5 9.8 15.2	232 311 448		0 0 .2 .2 .9 1.3	.1 .2 .4	250 MFM-FGE		Arsenic 0 2.3 7.0	.8 2.7 5.7	
Red River R <b>M1446</b> (68-72) 380002 Fargo (ND)		7.0 7.8 8.5	0.0 9.9 26.0	4.9 8.6 13.5	284 414 553		-		3265 MFM-F0			1.3 7.0 16.0	
Red River <i>CM 441</i> (69-72) 05054020 Below Fargp' (EPA-USGS)	606	7.1 8.0 9.2	0.0 9.8 27.0	2.3 8.1 12.4	282 384 743		0 0 1.3 .5 11.8 2.7	.3 1.5 13.0	2400 MFM-F0		Arsenic 3.5 8.0	3.1 8.4 34.0	
Red River, <b>RM274</b> (69-70) RRRR 274 Oslo, Minn. (Minn.)		7.6 8.0 8.3	0.0 2.4 13.0	8.7 10.4 12.8		2.0 33.8 440	.0. 0 1.2 .2 .4 .8	.3 .4 .7	4230 MPNECM (15180) MPN C			.9 2.9 15	
Red River RM296(67-72) 05082500 Grand Forks (USGS)	742 4780 47500	7.2 7.7 8.3	0 8.2 26.0		208 330 471		0 .3 2.0	.03 :03 .03			Arsenic 3.9 13.0		1
Red River / (M294) 380003 Grand Forks (ND)		7.2 7.9 8.8	0 9.1 24.0	3.2 9.0 14.1	320 533 1240			.2 .5 1.0	41 MFM-FCBR 3970 MFIMEN			1.1 3.4 17.0	
Red River <i>KM 403</i> (69-70) 260505 Perley, Minn. (Minn.)	·	7.1 7.9 8.6	0.0 2.5 13.0	0.9 7.3 12.2		2.0 18.2 148	0 0 .7 .5 1.5 1.1	. 4 . 7 1 . 1	11100 MPNEC 47400 MPN C	1		1.4 7.5 54	<u> </u>
								n ·					

#### Red River of the North Basin

ì						BAB IC :	PARAMETERS	- MG/L WHI	ERE APPLICA	PLE			
	FLOW,	РН	,TEAP °C	DO .	TDS	TS 3	ми3-мо3	TOTAL P	EAN VALUE OF (FECAL) (TOTAL) PACT,	ILY CREASE & OIL	TOXIC METALS mg/l	BOD 5-Day	STDS EASE FLOW
ATOM SOURCES AND R.M. Red River <i>KMプ</i> 38 (68-72) 380004 Drayton, N.D. (ND)		7.0 7.8 8.7	0 9.2 25.0		320 455 800			.1	190 MFM-F0	j	19/2	0.3 2.6 5.7	
Red River <i>KM158</i> (68-72) 380005 Pembina, N.D. (ND)	,	6.5 7.8 8.7	0 9.0 24.5	6.1 9.6 14.3	285 485 1040			1 .3 .9	122 MFM-F0	BR		0.4 2.9 10.0	
Wild Rice River (67-72) 05053000 Abercrombie (USGS)	.05 227 9260	7.1 7.9 8.6	0 10.8 25.0		110 1080 2840	`	0 .2 1.9	Phos-D .1 .3					
Wild Rice River (68-72) 38,0006 Cayuga, N. p. (ND)	·	7.4 7.9 8.3	0.0 7.4 24.0	6.2 9.9 11.9	560 962 1880			.6 .6 .6	10 MFM-FCE 343 MFIMEN			3.4 5.7 10.3	
Otter Tail, KM-1. (64-69) RROT-1 I Mile from Mouth (Minn)		7.2 7.8 8.6	.5 15.5 26.7	6.1 8.7 13.6	290 333 380	12 73 230	0 U .1 .2 .4 1.0	.1 .2 .4	1730 MPNEC	.5	Arsenic 5.0	1.5 3.2 4.8	
Sheyenne River (M) (69-72) 05060600 Near Harwood, N.D. (USGS)	30 420 3200	7.1 8.0 8.6	0 9.6 24.5	3.0 8.2 13.6	260 600 965		0 .5 1.3	.1 · .4 1.0			Arsenic 0.0 7.4 20	.5 3.8 25.0	
Sheyenne (1) 100 (68-72) 380007 .isbon, N.D. (ND)		6.9 7.9 8.8	0 9.5 24.0	5.0 10.1 15.4	310 630 1840			.2 .4 1.4	400 MFM-F0			1.4 4.1 16.0	
heyenne (10 (67-72) 05058700 isbon, N.D. (USGS)	16 290 4270	7.3 7.8 8.4	0.0 8.4 28.0		293 555 820	,	0 1.4 5.7	Phos-D 0 .1		•	0 28:8		

#### Red River of the North Basin

		<del> </del>				BAS IC F	PARAMETERS		ERE APPLICA				
	FLOW	РН	TEMP	DO	TDS	TS.3	NH3-NO3	TOTAL P	MEAN VAL.ONL (FECAL) (TOTAL) PACT,	Y GREASE & OIL	TOXIC METALS mg/l	BOD 5-Day	STDS. BASE FLOW
Sheyenne RMID - (69-70) 370013 Horth of West Farog(ND)		7.0 8.0 8.4	0 2.7 12	2.9 9.5 13.9		2.0 24.0 184.	0 0 .4 .3 2.2 1.3	.2 .4 1.6	1550 MPNEC		μ <sub>9</sub> /λ	.4 3.9 14.0	
Goose River 14715 (69-70) 05066500 Hillsboro, N.D. (USGS)	2 40 273	7.5 7.8 8.4	0 8.5 24.0		820 1160 1520								
Goose River <i>RM15</i> (71-72) 380027 Hillsboro, N.D. (ND)		7.3 7.8 8.3	0 10.4 22.0	5.2 9.6 13.1	430 704 1040	· ·		.2 .5 1.1	377 MFM-FC			1.7 2.5 4.4	
Pembina River <i>R.N140</i> (68-72) 380011 Walhalla, N.D. (ND)		7.0 7.9 8.7	0 8.5 25.0	4.8 10.2 14.3	280 576 800			: l . 4 . 8	27 MFM-FCB 1240 MFIME			.6 2.6 6.1	
Pembina River (31140 (67-72) 05099600 Walhalla, N.D. (USGS)	10 615 6680	6.9 7.8 8.5	0 6.6 25		245 529 1200		NU <sub>3</sub> 0. .7 7.7	Phos-D 0 .4 3.9			Arsenic 0.0 4.0 10.0		
Red Lake River IVISC (64-65) RRRL-56CBB14A55 56 Miles from Mouth (Minn)		7.1 7.7 8.9	.5 14.6 24.4	6.4 8.1 10.8		14 167 920	.05 <sup>NH3</sup> .05 .1 .3	.1 .5 2.5	402 MPNECM			2.0 4.3 6.8	
	•							·					
·													

SECTION F

Tactical Solutions

#### RED RIVER BASIN - SUMMÁRY '

SITUATION ANALYSIS	RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY		ATES COMPLETION	PROGRAM ELEMENT	,	MANPOWE (PROF -	<u> MAN – </u>	110S)
3,200,200,000		ļ			FY 73	FY 74-	FY 75	FY 76
About half of the Red River Basin falls within Minnesota which is under the jurisdiction of EPA Region V. Three of the largest dischargers in the basin are located in Minnesota. They are American Crystal Sugar at Crookston, E. Grand Forks and Moorhead. There are about	(1) Meet with the Regional Administrator for Region V and come to an agreement which will inculcate a working relationship between the two regions for all programs in the Red River Basin. (Management Division-R.A.'s Office)	NOV 72	NOV 72	5T1214 Reg. V	.2 -			
20 municipalities with populations larger than 1000 which discharge their treated municipal wastes to the Red River Basin. Some of these receiving waters are	(2) Inventory all point sources of water pollution in the Minnesota portion of the Red River Basin.	OCT 72	DEC 72	Reg. V		-		
primary recreation areas.  To date, our contacts with Region V and the Minnesota State Department of Health	(3) Analyze the water quality impact of each source and assign an allowable waste load • to each.	JAN 73	FEB 73	Reg. V			1	
have not yielded the information we need to adequately assess the water quality problems for the entire basin and to develop an accomplishment plan strategy that will manage the water quality of the	(4) Obtain commitment letters from industry which bind the industry to a specified loading limitation to be accomplished through an implementation schedule.	MAR 73	JAN 74	Reg. V		1.0		
entire basin.  Although Region VIII does not propose to develop work loads for Region V, the general needs in the Minnesota portion of	(5) Assess the discharge practices of wastewater treatment plants in Minnesota and recommend alternative methods which would improve water quality throughout the discharge period.	OCT 72	MAY 73	Reg. V		`.		
the Basin have been included herein in order to provide a complete picture of the problem.	(6) Review:Minnesota water quality standards to determine their adequacy in light of pending legislation and compatibility with North Dakota's standards.	MAY 73 MAY 73	JUN 73 JUN 73	Reg. V 2B1143	.5			
	(7) Influence North Dakota to conduct meaningful 0&M studies and sampling program for wastewater treatment plants in the basin. (A&W DIV Program Support and Program Planning Branches) (S&A DivSurveillance and Tech. Support Br.)		FEB 74 FEB 73	2B8163 2B8162 2B2147	.2 .3 .2	.3	-	-
							<u> </u>	

#### RED RIVER BASIN SUMMARY - Continued

CITHATIAN INIVECC		RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY		ATES COMPLETION	PROGRAM ELEMENT		MANPOWE (PROF -		
SITUATION ANALYSIS		BY SUB TASK & ORGANIZATION RESPONSIBILITY	INTITATION	COM LETTON	LECTION	FY 73			FY 75
	(8)	Establish a joint monitoring system of instream water quality effluent discharges. (Enforcement DivPermits and Enforcement Branches)	OCT 73	JUN 76	3B2124 2B2147	- - -	5.0 2.5	1.0	
During winter months, the majority of the Red River of the North is covered with ice. As a result, the DO and coliform	(1)	Encourage state and municipalities to expedite plant construction. (A&W Division - Planning Branch and Municipal Wastewater Branch)	JUL 72	JUN 73	2B3149 2B8162	.05 .05	.2		
state standards. To improve this condition, several industrial and municipal wastewater treatment plants have been or are being expanded and upgraded. However, some of these projects are behind schedule.	(2)	Coordinate with DFIC on this survey so that appropriate action may be taken if expected improvements do not materialize. Any necessary follow-up may include 18M surveys, operator training or upgrading of facilities. (S&A Division - Technical Support Branch)	DEC 72	JUN 73	2B5154	0.5	0	0	0
The Denver Field Investigations Center (DFIC) is committed to a water quality survey covering previously sampled stations on the Red River during 1965 and 1969-1970. Through a comparison of results from earlier studies,	(3)	Perform water quality survey and make comparative analysis with the 1965, 1969-1970, and 1972-1973 studies. (S&A Division-Technical Support Branch)	DEC 73	JUN 74	2B5154	0	4	0	0
this study should determine whether the expected improvement in water quality has occurred as a result of the upgrading of wastewater treatment facilities at Fargo, N.D. Moorhead, Minnesota, and Abercrombie, N.D.  The DFIC survey will take place prior to the completion of all new construction and therefore, an additional water quality survey will be required to document compliance with standards.	(4)	Initiate a comprehensive stream and effluent survey to determine a nutrient balance in the Red River of the North. Suggest recommendations for a control program as required by an analysis of survey results. Control programs recommended may include agricultural runoff control or nutrient removal by point sources. (Technical Support Branch-S&A Division)	SEP 73	JUN 74	2B5154	0	10 ,	0	0

#### RED RIVER BASIM SUMMARY - Continued

SITUATION ANALYSIS		RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY		NTES COMPLETION	PROGRAM ELEMENT		MANPOUE (PROF - FY 74-	- XAN -	(1:0 <u>5)</u>
A recommendation of the 1965 Conference con- cerning pollution of the Red River of the North was that nutrient concentrations in the river should be determined and sources located to	(5)	Review N.D. water quality criteria and use classifications to determine their adequacy and resolve differences between N.D. and Minnesota.	May 73	Jun 73	2B1143	See Pag			
revent excessive algae growth and subsequent ater quality degradation. Nutrients are hought to enter the river from point sources industry and municipalities) as well as nonoint sources (agriculture).	(6)	Obtain data from the collecting agency, code and insert into STORET system, and review program. Also, make on-site inspections to verify discharges. (S&A-Surveillance Branch)	SEP 72	JUN 76	2B2146 2B2148	1	1.5	2.	2
Also, the Red River Basin is characteristic in hat low flows are common and waste discharges enerally occur during spring and fall. North wakota water quality standards do not apply for 0 during the processing season for agricultural roducts if flows fall below the lowest 10% of 11 monthly flows of record for either the norths of April or May. This DO Standard is		Analyze the water quality of the Basin using a simplified math model. The model will reflect water quality throughout the basin based upon low flow, waste loading, instream water quality standards, and existing in-stream water quality. (A&W DivProgram Planning Branch). Update in FY 74.	SEP 72	OCT 73	2B3149	1.0	1.0		
ot identical to Minnesota but each applies to be main stem of the Red River.  significant amount of water quality data is ontinuously being gathered at Federal, State, and other sampling stations in the Red River sin. Additionally, situations occasionally rise when further data and/or onsite inspec-	(8)	Utilize DFIC's proposed survey and S&A's survey to see what improvements are being made in the water quality as wastewater control facilities are put into operation and to determine the effects of spring discharge on water quality. (A&W Division-Program Planning-Planning-Program Support Branches)			2B8162 2B3149 2B4153		.25 .40 .25		
ion is required for verification of discharges Il available data is not readily available for se in analyzing water quality needs or improve	, ,	Reconvene the Enforcement Conference and publish report.	FEB 73		3B1123 3B1124	5.0 2.0	3.0 1.0		
ents.	(10	)Follow-up on the recommendations coming forth from the Enforcement Conference.	SEP 74 SEP 74	JUN 76 JUN 76	3B1123 3B1124	0	2.5 1.6	1.5	1.0
veral treatment facilities are being designed hold treated wastes during the winter and scharge them during the following spring.	(11)	Follow-up on the compliance schedule of Fargo's 180-day notice.	SEP 72 SEP 72		3B1123 2B8102	.30	.2 .1		
								1	

#### RED RIVER BASIN SUMMARY-Continued

	RECOMMENDED ACTIONS	D	LATES	PROGRAM	MAMPOWER REQUIRED				
SITUATION ANALYSIS	BY SUB TASK & ORGANIZATION RESPONSIBILITY	INITIATION COMPLETION		ELEMENT	(PROF - MAX - F1 73 FY 74- FY 75			<u></u>	
Fargo is under a 180-day notice to construct a holding lagoon to provide winter storage of their effluent. An investigation of the Drayton WWTP will be conducted to determine whether an enforcement action is needed.	(12) Determine the necessity of an enforcement action against Drayton and/or other municipalities/industries.	SEP 72	JUN 76	3B1123	1.5	1.4	1.4	1.4	

RED RIVER BASIN - SUMMARY Continued

SITUATION ANALYSIS		RECOMÆNDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY	DA INITIATION	COMPLETION	PROGRAM ELEMENT	FY 73	MANPOWE (PROF - FY 74-	MAN -	
Fully developed water quality management plans are being developed for the Red River Basin and Fargo-Moorhead SMSA by North Dakota and Minnesota. Little doordination has been established between the two states, Region V and Region VIII. Existing legislation calls for the approval	(1)	Establish inter-region inter-state and inter-community cooperation and coordination for developing an integrated water quality management plan for the Red River Basin to be conducted on a continuing basis. (A&W Division-Program Planning Branch)	NOV 72	JUN 76	`2B3149 Reg. V	.5	. 6	.3	.3
of fully developed water quality management plans by July 1, 1973. New legis-lation extends this date to July 1974 and requires that areawide planning agencies be designated to conduct water quality planning. North Dakota does not have	(2)	Monitor the progress of the water quality management plans to assure adequate coverage and detail which will satisfy the requirements of 40CFR35. (A&W Division-Program Planning Branch)	SEP 72	JUN 76	`2B3149 Reg. V	.4	.8	.3	.3
the planning capability to fulfill the desired role set forth in the new legis-lation.	(3)	Provide assistance to North Dakota and Minnesota as it is needed to fulfill the basin planning requirements. (A&W Division~Program Planning Branch)	SEP 72	JUN 76	.2B3149 Reg. V	.5	.6	4	.3
	(4)	Review of the Basin Plan for the Red River of the North and the Metropolitan Plan for Fargo-Moorhead on an intra-agrency basis. Assure consistency with Minnesota portions.	APR 73 APR 73 APR 73 APR 73 APR 73 APR 73	JUL 73 - JUN 73 JUN 73 JUN 73 JUN 73 - JUN 73	2B3149 -2B6117 -3B1123 -3B2124 -2B5154 	.9 .3 .3 .4 .3	.4		
	(5)	Approve the water quality management plans for the Red River Basin and the Fargo-Moorhead SMSA.	JUL 73	JUL 73	2B3149	.1	.2	<del>[</del>	
	(6)	Assess impact of new legislation upon Water Quality Management planning and Facilities Management Grant Program.	SEP. 73	MAY 73 -	)2B3149	.5 :	.5	 	
	(7)	Work with Region V, HUD, States, and Fargo- Moorhead SISA to plan the best strategy for creating districts that could do water quality management planning under the new legislation. (A&W DivProgram Planning Br.)	JUN 73	SEP 73	2B3149	.50	.7		

SITUATION AMALYSIS	RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY	DATES INITIATION COMPLETION		PROGRAM ELEMENT						
American Crystal Sugar - Drayton, N.D.  Past discharges of flume water have created	(1) Continue to meet with company to settle disagreement on BOD <sub>5</sub> loading limitation.	SEP 72	MAR 73	3B2124	.9					
xcessive organic and solids loading. At he last formal meeting with EPA on June 29, 972, ACS agreed to operate a closed	(2) Obtain additional commitment letter.*	' MAR 73	JUN 73	3B2124 3B2123	.30 .30					
flume system for the 72-73 campaign in order to reduce the BOD5 loading. RAPP guidelines limit BOD5 to 0.5 lb/ton of sliced beet.  CS believes that this is an unrealistic figure because spray irrigation would have to be used exclusively to meet the requirements. Therefore, they feel 1.0 lb/ton represents the best practicable treatment. The plant uses total containment during winter months and utilizes the "spring flush" technique to drain their lagoons. No discharge under ice cover is permitted under EPA guidelines.	(3) Monitor stream and effluent to detect pollution levels.  (Enforcement DivEnforcement and Permits Branches)	SEP 73	MAR 75 ·	382123		.2	0.05			
merican Crystal Sugar, Moorhead, Minn.  CS at Moorhead is a major contributor of MOD5 and TSS to the Red River. However, Region V is responsible for working with this company to establish an effluent requirement that will be compatible with n-stream water quality criteria. To date, such a limitation has not been established.	<ul> <li>(1) Meet with Region V, State of Minnesota, and industry to agree upon effluent limitations (should be uniform with other Sugar Beet Mills).</li> <li>(2) Obtain a commitment letter from the industry</li> <li>(3) Monitor jointly the effluent and in-stream water quality to determine impact of and compliance with commitments.</li> <li>*These commitment actions will be converted immed-</li> </ul>	APR 73 MAY 73 JUL 74	MAY 73 JUL 74 JUN 75	3B2124 RegV 3B2123 3B2124 Reg. V 3B2123 Reg. V	1.0 .10 .10		.2			
	iately into permit actions will be converted immediately into permit actions under the new legis- lation as soon as guidelines are available.									

		RED RIVER BASIN SUMMARY, Continued	<del>,</del> .		, ———	<del> </del>			
SITUATION ANALYSIS		RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY		TES COMPLETION	PROGRAM ELEMENT	FY 73	MANPOWE (PROF - FY 74-	MAN -	110S)
American Crystal Sugar, E. Grand Forks, Minn.  ACS at E. Grand Forks is a major contributor of BODs and TSS to the Red River. However, Region V is responsible for working with this company to establish an effluent requirement that will be compatible with in-stream water quality criteria. To date, such a limitation has not been established.	(2)	Meet with Region V, State of Minnesota, and industry to agree upon eifluent limitations (should be uniform with other Sugar Beet Mills).  Obtain a commitment letter from the industry.*  Monitor jointly the effluent and instream water quality to determine impact of and compliance with commitments.	APR 73 MAY 73 JUL 74	MAY 73  JUL 74  JUN 75	3B2124 Reg. V 3B2123 3B2124 Reg. V 3B2123 Reg. V	1.0 .10 -10		.2	
American Crystal Sugar, Crookston, Minn.  ACS at Crookston is a major contributor of BODs and TSS to the Red Lake River, a large tributary of the Red River. However, Region V is responsible for working with this company to establish an effluent requirement that will be compatible with instream water quality criteria. To date, such a limitation has not been established.	(1)	Meet with Region V, State of Minnesota, and industry to agree upon effluent limitations (should be uniform with other Sugar Beet Mills).  Obtain a commitment letter from the industry*  Monitor jointly the effluent and instream water quality to determine impact of and compliance with commitments.	APR 73	MAY 73  JUL 74  JUN 75	382124 Reg. V 382123 382124 Reg. V 382123 Reg. V	.10 .1	1.0	.2	

SITUATION ANALYSIS	RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY IN	DATES INITIATION COMPLETION		PROGRAM ELEMENT						
		DI BOD IABR & OKOMIZATION RESIGNATURE	111111111111111111111111111111111111111		DDDIIDII	FY 73	FY 74-			
Armour Food-West Fargo , N.D.						-			 	
A dye test study by EPA on March 29, 1972, established that some of the waste discharges from the processing operation reach the	(1)	Negotiate with company and encourage a sanitary sewer hook-up.	OCT 72	FEB 73	<sup>4</sup> 3B212 <b>4</b>	.90				
Shevenne River instead of being routed to the Fargo Industrial Park sewage treatment facility. Armour has discovered a cross	(2)	Obtain commitment letter and follow-up with inspection.*	MAR 73	JUN 73	3B2123 3B2124	.20				
connection in the sewer lines and a collapsed sewer line on the stream bed to be responsible for the discharge. The company will either install a septic tank with an underground disposal field or make a new connection to the industrial park facility. EPA is encouraging the latter alternative.	(3)	Monitor stream and effluent to detect pollution levels.	JUN 73	,AUG 73	3B2123		.2			
i										
Fargo, N.D Wastewater Treatment Plant  Located on Red River of the North. Project consists of improvements to the wastewater	(1)	Finalize construction, inspection, put plant into operation. (Air & Water DivMunicipal Waste Water Branch)	SEP 72	SEP 73	288162	.1	1.0			
treatment facilities. Present population approximates 53,000 and a future population of 85,000 is projected for 1992. Currently.	(2)	0&M Inspection.	APR 74	APR 74	288163 287160		.30 .05			
the city wastewater is treated by a trickling filter plant which provides approximately reduction of BOD and SS. A six-cell.	(3)	Monitoring of in-stream water quality impact. (if needed). Surveillance & Analysis)	APR 74	MAY 74	282148		.25			
520-acre waste stabilization lagoon system is presently under construction to provide further reduction, or tertiary treatment of municipal wastes discharged into the Red River of the North. Nutrient removal is not required at this time.	(4)	If it is determined that nutrient removal is required based on the water quality surveys and analyses by S&A & DFIC, influence State and municipality to modify existing facilities* to provide for removal through construction grants aid. (S&A MWW Planning)	APR 74 JUL 74 Jul 74	JUN 76 JUN 76 JUN 76	3B1123 2B8162 2B3149		.2	.2 ;.	2	
		rmits for municipal facilities will be used to mese needs as required.	neeŧ		}					

## TABLE III - INTEGRATED BASIN TACTICAL SOLUTION AND RESOURCE REQUIREMENTS RED RIVER BASIN SUMMARY - Continued

SITUATION ANALYSIS	RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY  DATES INITIATION COMPLETION						FY 73	(PROF -	ER REQUIRE - MAN - 110 - FY 75 F
Inion Stockyards - Fargo  The stockyards have liquid waste treatment facilities constructed under a Federal research, development and demonstration grant and placed into operation in April 1971.  The lormal operation routes all wastes to the swo-cell lagoon. But, during the winter conths, there is no significant pen drainage for track washing. Watering trough overflow combines with the domestic effluet from the septic tank and is bypassed to the river, eliminating the use of a lift station. The organic loading is low (20 mg/1) and	<ol> <li>Continue with negotiations and determine effluent requirements. Encourage the company to use better water conservation practices.</li> <li>Obtain letter of commitment.*</li> <li>Monitor Stream and effluent to detect pollution levels.</li> <li>(Enforcement DivEnforcement and Permits Branches)</li> </ol>	JAN 73 JAN 74	JAN 73 MAR 73 JAN 75	3B2124 3B2123 3B2124 3B2123	. 4	. 30	.25		
ould presumably not benefit from treatment to the lagoon system. An acceptable treatment f wastes during winter months is being envestigated. Complete winter retention ight be achieved by decreasing water rough overflow.									
argo, N.D Water Treatment Plant roject consists of improvements to the ludge handling facilities of the water reatment plant. Currently, 40,000 lbs/day	(1) Award contract, finalize construction, inspection, put plant into operation.  (Air & Water Div Minicipal Waste Water Branch)	SEP 72	OCT 73	2B8162	.1	1.2			
f suspended solids (lime sludge) is being eposited in the Red River. Project is urrently out for bids and when construction	(2) O&M Inspection (Air and Water DivMunicipal Waste Water Branch)	APR 74 APR 74	APR 74 APR 74	2B8163 2B7160		.30			
s complete 40,000 lbs/day of inert dried ime sludge will be deposited in the Fargo anitary Landfill.	(3) Monitoring (if needed by S/A)	SEP 74	OCT 74	2B2148			. 30		

## TABLE III - INTEGRATED BASIN TACTICAL SOLUTION AND RESOURCE REQUIREMENTS RED RIVER BASIN SUMMARY - Continued

SITUATION ANALYSIS	RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY	DATES INITIATION COMPLETION		PROGRAM ELEMENT	MANPOWER REQUIRED ( PROF - MAN - MOS)						
			-	<u> </u>	FY 73	FY 74-	FY 75	L.FX75			
Minnekota Power Coop., Inc Grand Forks Lignite or oil is burned to produce steam for this 21,500 kw electrical generation	(1) Continue meetings with company to develop satisfactory effluent requirements-RAPP Program.	JUN 72	MAR 73	3B2124	1.0	<del>-</del>					
lant. The plant normally on cold stand-by perational basis and has not been used con- inuously for more than five days in the past	(2) Obtain commitment letter.*	MAR 73	MAY 73	3B2123 3B2124	.4						
eight years. Expected operation is 700 hrs. per year. However, during operation, the discharge is high in total solids concentration. Permits has obtained a letter of commitment from the company concerning another plant outside this basin. Effort will now be shifted to this Grand Forks plant.	(3) Monitor effluent and stream after remedial measures are complete.  (Enforcement DivEnforcement and Permits Branches)	JUN 73	JUN 76	3B2123		.4	.05	.03			
tter Tail Power Company - Wahepton ooling water used in this steam generation	(1) Develop effluent criteria through RAPP. Program.	DEC 72	JUN 73	3B2124	.4						
lectric plant is discharged directly to ne Red River. The increase in dissolved	(2) Obtain Commitment letter.*	JUN 73	SEP 73	3B2123 3B2124		.3					
alts and thermal degradation impose a threat to the water quality. The COE transferred a copy of their discharge permit to PA on March 8, 1972. There have been no formal meetings with personnel from this lant as yet to improve the quality of their ffluent. Permits anticipates active orrespondence to begin late 1972.	(3) Monitor effluent and stream to detect pollution levels.  (Enforcement DivEnforcement and Permits Branches)	OCT 73	JUN 75	382123			0.05				

### RED RIVER BASIN SUMMARY - Continued

SITUATION ANALYSIS	RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY	D.A INITIATION	COMPLETION	PROGRAM ELEMENT		MANPOWE (PROF - FY 74-	X4X +	::CS)
USDI Baldhill Dam National Fish Hatchery - Valley City, N.D.  The COE Permit dated October 5, 1971 describes the hatchery operation as hatching and rearing various species of sport fishes in warm water ponds, feeding the fish on organisms generated through a natural food chain in the rearing ponds. An organic pollution problem is possible from the discharges of fish fecal materia and unused food. To date, no formal contacts have been made with Bureau of Sport Fisheries concerning their conservation practices. Inter-agency cooperation will be obtained to safeguard each agency's interests.	<ul> <li>(1) Obtain commitment from Game and Fish to observe conservation practices to minimize pollution load.*</li> <li>(2) Monitor effluent and stream to detect potential pollution load.</li> <li>(Enforcement DivEnforcement and Permits Branches)</li> </ul>	FEB 73	MAY 73	3B2124 3B2123	. 40	. 40		
USDI Valley City National Fish Hatchery, Valley City, N.D.  The COE Permit dated October 5, 1971 describes	(1) Obtain commitment from Game and Fish to observe conservation practices to minimize pollution load.*  (2) Monitor effluent and stream to detect potential pollution load.  (Enforcement DivEnforcement and Permits Branches)	FEB 73	MAY 73	3B2124 3B2123 3B2123	.40	.40		

## RED RIVER BASIN SUMMARY-Continued

SITUATION ANALYSIS	RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY  DATES INITIATION COMPLETION ELEMENT	
Pillsbury Food - Grand Forks, N.D.	1) Meet with company and State official and JUL 73 JUL 74 '3B2124 develop a DS Standard.	0 1.0
A COE discharge permit was forwarded to our office on April 17, 1972 for the dis- charge of air conditioner cooling water	2) Develop effluent concentrations for plant through RAPP program.  JUL 74 DEC 74 3B2124	0.2
to the Red River. The discharge is high in dissolved salts. As yet there is no	3) Obtain commitment letter.* DEC 74 FEB 75 382123	0.15
State standards for DS concentrations; therefore, meeting will be initiated in	4) Monitor stream to detect pollution levels. FEB 75 FEB 76 3B2123	0.15 0.05
an attempt to establish a workable DS guideline. All sanitary wastes are diverted to the municipal STP.	Enforcement DivEnforcement and Permits Branches)	
Grafton, N.D.  Located on the middle fork of the Park River which is a tributary to Red River of the North. The present population is approximately 6000 and a 1990 design forecast of 7000 is expected. The City is currently serviced by a two-cell waste stabilization lagoon which is organically overloaded. The treatment project as proposed in the grant application consists of a 2.25 aerated pretreatment lagoon to treat the organic overload modifications to existing master lift station, and a new lift station with forced main. Plans and specifications currently being prepared. Nutrient removal not required.	1) Process grant application, make grant, review plans and specifications, begin construction. (Air & WaterMunicipal Waste Water Branch)  2) Finalize construction, inspection, put plant into operation. (Air and Water DivMunicipal Waste Water Branch)  3) O&M Inspection. (Air and Water DivMunicipal Waste Water Branch)  4) Monitoring (if needed by S/A).  5) If it is determined that nutrient removal is required based on the water quality surveys and analyses by S&A and DFIC, influence the State and municipality to modify facilities to provide for removal through construction grants aid.**  (S&A, MWW, Planning).	1.2 .25 .05 .30 .15 .2 .2 .2 .2

RED RIVER BASIN SUMMARY - Continued

``		RECOMMENDED ACTIONS		ATES	PROGRAM		MANPOWE		
SITUATION ANALYSIS	<b>}</b>	BY SUB TASK & ORGANIZATION RESPONSIBILITY	INITIATION	COMPLETION	ELEMENT	FY 73	(PROF -		MOS) FY 76
Wahoeton, N.D.  Located on Red River of North. Present population approximates 7100 people with 4500 students attending a local college. The projected 1992 design population	(1)	Continue processing construction oriented activities, contract award, finalize construction, inspection, put plant expansion into operation. (Municipal Waste Water Branch-Air & Water Div.	SEP 72	AUG 73	288162	.3	5 ···		
will equal 16,500 people: At present, the waste load from the community is handled by a two-cell waste stabilization	(2)	O&M Inspection. (Air and Water Div Municipal Waste Water Branch)	MAY 74	MAY, 74	·2B8163 -2B7160		.30 .05		
lagoon and is organically overloaded. The	(3)	Monitoring if necessary by S/A.	OCT 74	OCT 74	·2B2148			.3	
proposed project will consist of the addition to the existing lagoon system of an aerated cell. The aerated cell will considerably reduce the organic load to the lagoon system. Project is currently out for bids. Nutrient removal not included.	(4)	If nutrient removal is required based on the water quality surveys and analyses by S&A and DFIC, influence the State and municipality to provide for removal through construction grant aid. (S&A, MWW, Planning). **	JUL 74	JUN 75 JUN 76 JUN 76	3B1123 2B8162 2B3149	'		.3 .2 .2 .2	.2
Abercrombie, N.D.  Located on the Red River of the North. The 1970 population is listed at 260 with	(1)	P&S review, contract award, finalize construction, put plant into operation and inspection of facilities.  (A&W DivMunicipal Waste Water Branch)	SEP 72	JUN 73	288162	1.0			
350 people projected for 1990. Currently the town is served by septic tanks and cesspools. The town is presently planning a sewer system and has requested a construction grant for a lift station with force main and a two-cell waste stabilization Tagoon system. A construction grant has been processed and plans and specifications are currently being prepared.	(2)	O&M Inspection (A&W DivMunicipal Waste Water Branch)	MAY 74	MAY 74	288163° 287160		.30 .05	-	

RED RIVER BASIN SUMMARY-Continued

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SITUATION AMALYSIS	RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY	DATES INITIATION COMPLETION	PROGRAM	FY 73	MANPOWE (PROF - FY 74-	MAN -	MOS)
Park River, N.D.  Located on the South Branch of the Park River which is tributary to the Red River of the North. The 1970 population in Park River by official census was 1,680, and by the year 1990 a population of 2,200 is anticipated. The present treatment facilities consist of a one-acre eerated lagoon followed by one 20 and one 10-acre waste stabilization ponds operated in series. The present project consists of a lift station with force main which services an annexed area previously utilizing septic tanks. Construction on project is essentially complete.	(1) O&M Inspection.  (Air & Water DivMunicipal Waste Water Branch)	SEP 72 OCT 72	2B8163 2B7160	.30 · .05			
Amenia, N.D.  Located on the Rush River which is tributary to Red River of the North. The town presently is served by septic tanks and cesspools. The 1970 population was reported as 100 people with a 1990 population of 150 people expected. The proposed project will consist of a sewage collection system and a two-cell waste stabilization lagoon operated in series.	<ol> <li>Pre-application review and conference.         (Air and Water DivMunicipal Wastewater Branch, Planning Branch)</li> <li>Processing of grant application, grant offer, P&amp;S review, contract award, finalize construction, put plant into operation and inspection. (Air and Water DivMunicipal Waste Water Branch)</li> <li>O&amp;M Inspection. (A&amp;W DivMunicipal Waste Water Branch)</li> </ol>	FEB 73 FEB 73 OCT 73	288162 283149 288162 288163 287160	1.0	.30		

## RED RIVER BASIN SUMMARY-Continued

SITUATION ANALYSIS	RECONMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY	DATES INITIATION COMPLETION	PROGRAM ELEMENT	(PROF	ER REQUIRED - MAN - MOS) - FY 75 FY 76
Valley City, N.D.  Located on the Sheyenne River which is tributary to Red River of the North. The 1970 city population was reported at 7,843 with the 1970 project area population recorded at 52. The 1992 projected city population is 10,000 with 100 people to be served by the project area. The project will consist of a lift station and force main to handle waste contributions from an area previously unsewered. Ultimate treatment of sewage will be provided by a two-cell waste stabilization lagoon system.	<ol> <li>Continue processing construction activities, put plant into operation, inspection.         (A&amp;W DivMunicipal Waste Water Branch)</li> <li>O&amp;M Inspection. (A&amp;W DivMunicipal Waste Water Branch)</li> <li>If nutrient removal is required based on the water quality surveys by S&amp;A and DFIC, influence State and municiplaity to provide for removal through construction grant aid.         (S&amp;A, MWW, Planning).</li> </ol>	AUG 73 AUG 73 AUG 73 AUG 73 JUL 74 JUN 75	2B8162 2B8163 2B7160 2B1123 2B8162 2B3149	.30 .05	0.2 0.2 0.2 0.2 0.2
Currently, there are six projects on the North Dakota 5-year needs list which are in the Red River of the North drainage basin. They are as follows:  1) Fargo, N.D. 2) Grafton, N.D. Extension 3) Grand Forks, 1 of no data 4) Valley City, 1DInterceptor 5) Wahpeton, N.D. Systems 6) West Fargo  here are no new treatment needs of major significance in the basin forseen at this time with he possible exception of nutrient removal.	<ol> <li>Pre-application review and conference.         (Air and Water-Municipal Waste Water Branch, Water Quality Planning)</li> <li>Processing of application, grant offer, P&amp;S review, contract award, construction, inspection, put plant into operation.         (A&amp;W-Municipal Waste Water Section)</li> <li>O&amp;M Inspection. (Air and Water DivMunicipal Waste Water Branch)</li> <li>Provide for nutrient removal as noted pre-** viously on a case-by-case basis.</li> </ol>	JUN 74 JUN 75 JUN 75 JUN 76 JUN 75 JUN 76 JUN 75 JUN 76 JUN 75 JUN 76	2B8162 2B3149 2B8162	3.0 1.00 .15	3.0 1.00 .15

SITUATION ANALYSIS		RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY IN:		COMPLETION	PROGRAM ELEMENT	MANPOWER REQUIRED (PROF - MAN - MOS) FY 73 FY 74- FY 75 FY 76					
	(7)	Assess impact of new legislation upon the Facilities Management Grants Program. (A&W Division-Program Planning Branch)	APR 73	MAY 73	·2B3149	.25	FY 74-	FY 75	FY 76		
State Program Plan: Yearly, the EPA reviews and assesses North Dakota's water program. A State Program Plan is submitted to EPA as a requirement to obtain supplemental funding	(1)	Coordinate State Program Plans with Basin water quality management planning and construction grants (i.e., one and five year needs list, implementation schedule, standards, program reviews). (A&W Division-Program Planning, Program Support Branches)	OCT 72 OCT 72 OCT 72	JUN 76 JUN 76 JUN 76	2B3149 2B8162 2B4153	.5 .25 .25	.5 .25 .25	.4	.4 .25		
requirement to obtain supplemental funding from EPA for the State's program. The program plan contains information which can assist other EPA operations.	(2)	Update one and five year needs list.  Approve North Dakota State Program Plan	OCT 72 OCT 72 OCT 72 SEP 72	JUN 76 JUN 76 JUN 76 JUN 76 JUN 76	2B8162 2B4153 2B2146 2B4153	.3 .3 .3	.3 .3 .3	.3 .3 .3	.3 .3 .3		
Construction Grants Administration:  For each new municipal wastewater facilitie grant application, about one man-month is spent processing the application for administrative purposes.	(1)	Process seven new applications and complete seven others. (See page 9 of Figure 7	SEP 72	JUN 76 -	·2B8316	2.0	3.0	3.0	3.0		
EIS Reviews:  Environmental assessments are written for each construction grant project and each water quality management plan. They need to be reviewed to determine whether an EIS will be needed or a negative declaration can be issued.	(1)	Review two water quality management plans and seven construction grant applications.	SEP 72	JUN 76 🔍	286117	1.5	1.0	1.0	1.0		

RED RIVER BASIN SUMMARY - Continued

	RED RIVER BASIN SUMMARY - Continued	<u></u>					
SITUATION ANALYSIS	RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY	DATES INITIATION COMPLETION	PROGRAM ELEMENT	FY 73	MANPOWE (PROF - FY 74-	MAN -	NOS)
Planning Review of Construction Grant Applications:  Too often construction grant applicants are not fully aware of the planning assects of the proposed project. Also, it is a Federal regulation (40CFR601) that planning criteria be met prior to offering a grant.	(1) Review construction grant applications for conformance to water quality management plan, compliance to water quality standards, and environmental impact. (A&W Division-Program Planning Branch)	SEP 72 JUN 76	<sup>1</sup> 2B3149	6	-1.3 -	1.0	.5
Public demand for environmental news:  The success of the environmental program in Region VIII is dependent upon public backing and awareness. Also, public cooperation helps EPA fulfill its regulatory responsibilities. As of yet, we have not gained the full backing of the people we represent (e.g. the majority do not know that we exist).	<ol> <li>Keep the public aware of EPA activities and environmental problems within the Red River Basin via the news media.</li> <li>Encourage Headquarters to finance the cost of producing documentary film on water quality management of rivers in the Rocky Mountain Region which would include the Red River of the North. (Management Division-Public Affairs).</li> </ol>	SEP 72 JUN 76 -	5T1214 ·	.5 ´	.5	.5	-
Manpower and Training:	(1) Monitor 5(g)l training course for approx. 20 WWTP operators in Wahpeton, N.D. area.	SEP 72 DEC 72 -	2B7158	0.3	-	-	
02M of wastewater treatment plants de- termine whether or not plant efficiency will be maintained at their design level.	(2) Monitor 5(g)l training course for approx. 15 WWTP operators in Grand Forks, N.D. area.	JAN 73 JUN 73	>2B7158	0.3	-	-	-
Most wastewater treatment plant operators are not educated to operate plants	(3) Continue training support in Red River of the North area.	SEP 72 JUN 76 -	· 2B7158	0.4	1	1	1
correctly. Consequently, training needs to be provided which will fill this gap.	(4) Coordinate Field Study Training Program for wastewater treatment plant operators.	SEP 72 JUN:76	_287158	0.1	0.1	0.1	0.1
	(5) Work with State on developing manpower planning function.	SEP 72 JUN'76 -	≥2B7161	0.2	0.2	0.2	.2
	(6) In-house manpower planning-employment and training project.	SEP 72 JUNI 76	`2B7161	0.5	0.5	0.5	.5

# TABLE III - INTEGRATED BASIN TACTICAL SOLUTION AND RESOURCE REQUIREMENTS

# RED RIVER BASIN SUMMARY - Continued

SITUATION ANALYSIS		RECOMMENDED ACTIONS BY SUB TASK & ORGANIZATION RESPONSIBILITY	INITIATION	COMPLETION	PROGRAM	FY 73	MANPOWE (PROF - FY 74-	MAN -	
(1) The Garrison Reservoir Water Project will result in water being diverted to the Red River Basin for irrigation purposes. (projected for 1978)	(1)	Assess the water quality impact of the proposed project and work with the Bureau of Reclamation to minimize the deleterious effects during the remaining interim planning stages. (A&W Division-Program	SEP 72	JUN 76	-283149	.2	.4	.4	.4
(2) Authorized COE reservoir on Sheyenne River near Kindred, N.D.		Planning Branch)							}
(3) Authorized COE reservoir on Wild Rice River near Twinn Valley, Minn.	(2)	Coordinate with the Bureau of Recreation in the development and/or review of the EIS for each project. (A&W Division-' Program Planning Branch)	JAN 73	JUN 76	·2B6117	.3	.3 ·	1.0	1.5
(4) Proposed COE reservoir on Pembina River near Park River, N.D.	(3)	· Evaluate the effects of each COE project's	JUL 74	JUN 76 -	△2B3149	-	_	1.0	2.0
(5) Proposed COE reservoir on Red Lake River near Crookston, Minn.  Major water resources such as these affect water quality in the basin. Precaution must be taken to minimize the		induced flow regulation on accomplishment plant objectives. Work with COE to minimize the deleterious effects during the remaining interim planning stages. (Program Planning _ Branch-A&W Division)					,		
environmental detriments resulting from each project.									
Each project that uses Federal monies for construction must be cleared under the Equal Employment Act.	(1)	Determine whether 7 construction grant pro- jects satisfy the Equal Employment Act requirements.	SEP 72	JUN 75	571214	.25	.75	.75	:
Each Refuse Act Permit must be processed and put on the computer for retrieval and inter-office use.	(1)	Process Permit Applications and Set up data bank.	SEP 72	JUN 76	382124	1.0	2.2	2.0	2.0

## SECTION G

Point Source Reductions Required

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: American Crystal Sugar, Drayton

R QUALITY <b>PA</b> RAMETERS	AGGREGATED ACTION ITEMS REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)	WASTE LOADS REDUCTION (SEE TABLE III)	PRESENT WATER QUALITY	ANTICIPATED WATER QUAI (λ-day-10 year flow) (SEE WQS & TABLE III)
N QUALITI FANGELERS	(From TABLE III)	(See TABLE I)	FY FY FY FY FY 72 73 74 75 76	(See TABLE II)	(SEE WQS & TABLE 111)  FY FY FY FY FY 72 73 74 75 76
BOD 5	Resolve problem with BOD5 loading limitation and monitor to assure compliance with	65,800 #/day	60794 2750	5.7 mg/l max	No instream standard
	commitments.				
TSS		16,171 #/day	13420	No data	No instream standard
D.O.				No data	5. ng/1
Total Coliform				6300/100 ml (mean)	5M/100m1
flows fall below the a	ng agricultural products pr verage of the lowest 10% of months of April or May, whi apply.	all monthly flows of			

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: American Crystal Sugar, E. Grand Forks

WATER QUALITY PARAMETERS	AGGREGATED ACTION 171 MS REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)	WASTE LOADS REDUCTION (SEE TABLE III)	PRESENT WATER QUALITY	ANTICIPATED WATER QUALITY (7-day-10 year flow) (SEE WQS & TABLE III)
	(From TABLE Ill)	(See TABLE I)	FY FY FY FY FY 72 73 74 75 76	. (See TABLE II)	FY FY FY FY FY 72 73 74 75 76
BOD <sub>5</sub>	Work with Region V to es- tablish effluent require- ments and obtain commit-	75,000 #/day	Determination will be made regarding needed reductions	17 mg/1	No N.D. instream Standard.
TSS	ments.	2,600	reductions	148 mg/1	No N.D. instream Standard.
DO				3.2 mg/l	5mg/L
Total Coliform				3970/100	5000/100m1
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		1			

### TABLE 17 - WATER OCALIDY PURESCRIPT A PROUGH COMPLETION OF ACTION HEMS

## INDIVIDUAL 500 RCE OR CLUSTER 60 SOURCES: American Crystal Sugar, Moorhead, Minnesota

	AGGREGATED ACTION 11 'S	PRESENT UNSIL LOADS	MASTE LOADS REDUCTION	PRESENT WATER QUALITY	ANTICIPATED WATER OUALITY
SATER QUALITY PARAMETERS	REGUIRED FOR REDUCTION	(24 hr ave)	(SEE TABLE III)		(7-day-10 year flow) (SEE WQS & TABLE III)
yeimiri indimibio	(From TABLE III)	(See TABLE I)	FY TY FY FY FY 72 73 74 75 76	(See TABLE II)	FY FY FY FY FY 72 73 74 75 76
BOD <sub>5</sub>	Work with Region V to establish effluent requirements and obtain	118,000 #/day	Determination will be made regarding needed reductions.	34 mg/1	No instream standard
TSS	commitments.	12,500 #/day		_X.D.	No instream standard
DO				2.3 mg/l	Ing/
Total Coliform				27,000/100	9000(100m1
	1				
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INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: American Crystal Sugar, Crookston, Minn.

WATER QUALITY PARAMETERS	AGGREGATED ACTION IT: 11S REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)	WASTE LOADS REDUCTION (SEE TABLE III)	PRESENT WATER QUALITY	(7-	day-	10 y	ear	ER QUALITY flow) E III)
	(From TABLE III)	(See TABLE I)	FY FY FY FY FY 72 73 74 75 76	, (See TABLE II)	FY 72	FY 73	FY 74	FY 75	FY 76
вор5	Work with Region V to establish effluent re-	125,000 #/day	Determination will be made regarding heeded	No downstream station.		_	-		
TSS	quirements and obtain commitments.	25,200 #/day	reductions.			+			
DO									
Total Coliform									
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							+	$\dashv$	
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	<del> </del>					+	-	+	

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Fargo WWTP

	ACGREGATED ACTION THEMS	PRESENT WASTE LOADS	WASTE LOADS RED	UCTION T	PRESENT WATER QUALITY	ANTICIPATI	ED WATER QUALIT
	REQUIRED FOR REDUCTION	(24 hr ave)	(SEE TABLE III)		**************************************	(7-day-10	year flow)
VIIR QUALITY PARAMETERS						(SEE WQS 8	TABLE III)
		l	FY TY FY FY	775		FY FY FY	, EV EV
	(From TABLE III)	(See TABLE I)	72 73 74 75	76	(See TABLE II)	72 73 74	75 76
		,					
	Improvements under	0.5 41/					
BOD5	construction	3500 #/d	2300		34 mg/1	No instrea	a standard —
_						i I I	
TSS		4200 #/d	2450		No data	No instrea	n standard
				1 !			
DO		1					5mg/1
	<u> </u>				2.3		1 7 1 2 1 2 1
		[					
Total Coliform				_	27,000/100 (mean)		5M/LOOm1
	<u> </u>					1   1	1
*Standard changes during	agricultural products proce	essing season.					]
If the flows fall below	the average of the lowest 10	*	<del></del>				<del> </del>
whichever is lower then	record for either the months the D.O. Standard does not	or April or May,					
	ine b.o. Beandard does not	другу.					1.
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## TABLE BY - WATER OBALLER THROUGH AT THROSEN COMPLETION OF ACTION TIERS

INDIVIDUAL : OGRCE OR CLUSTER OF SOURCES: Union Stockyards, West Fargo

HER QUALITY PARAMETERS	AGGREGATED ACTION TILMS REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)	UASTE LOADS REDUCTION (SEE TABLE III)	PRESENT WATER QUALITY	ANTICIPATED (7-day-10 y (SEE WQS &	
THE VENETITY TRANSMITTING	(From TABLE Ill)	(See TABLE I)	FY FY FY FY FY FY 72 73 74 75 76	(See TABLE II)	FY FY FY 72 73 74	FY FY
BOD5	Determine effluent requirements and monitor progress	782 #/d	Determination will be made regarding heeded reductions.	14.0 mg/l	_No instream	standard
TSS		5000 #/d		184 mg/1	No instream	standard
DO				2.9 mg/1		5mg/1
Total Coliform		965/100		3250/100		5M/100m1
of all monthly flows of	agricultural products proce the average of the lowest 10 record for either the months the D.O. Standard does not	s of April or May.				
				·		
		•				

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Fargo Water Filtration Plant

	AGGREGATED ACTION IILIS	PRESENT WASTE LOADS	WASTE LOADS REDUCTION	PRESENT WATER QUALITY		WATER QUALIT
	REQUIRED FOR REDUCTION	(24 hr ave)	(SEE TABLE III)		(7-day-10 ye	ear flow)
VIER QUALITY PARAMETERS					(SEE WQS & T	ABLE III)
			FY FY FY FY		FY FY FY	FY FY
	(From TABLE III)	(See TABLE I)	72 73 74 75 76	(See TABLE II)	72 73 74	75 76
	Improvements under					
BOD <sub>5</sub>	construction			34 mg/1	No instream	standard-
TSS		40,000 #1D	40M	No. 1000		
100	<del>                                     </del>	40,000 #15		No data	<del>             </del>	
						Img/
DO	j			2.3		j {
Total Coliform				27.000/100 (mean)		5M/100m1
	į			1		1 1
	1			1		
	<u> </u>					
			1			
*Standard changes during	agricultural products proces	sing season.				
If the flows fall below t	he average of the lowest 10%	of all			<del></del>	
whichever is lever then	or either the months of Apri the D.O Standard does not ap	u or May,				
whichever is lower, then	the D.O Standard does not ap	bit.		}		1 1
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## TABLE IV - WATER QUALITY PURROVLABLYT PHROUGH COMPLETION OF ACTION ITEMS

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Armour Food - West Fargo

MATER QUALITY PARAMETERS	AGGREGATED ACTION TO MS REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)		E LOA			MOIT	PRESENT WATER QUALITY	(7-	day-1	LO ye	WATER C ar flow ABLE II	J)
MIER QUALITY PARAPILIBRS	(From TABLE III)	(See TABLE I)		FY F	<u> </u>			, (See TABLE II)	FY 72	FY		FY FY	
BOD <sub>5</sub>	Obtain commitments and negotiate with company to encourage a sanitary sewer hook-up.	5.4 #/d	made	rmina rega	rding	nee	be ded	14.0 mg/1	No	inst	ream	standan	rd
Suspended Solids	sewer mook-up.	2.6 #/d	-11	-		11	11	184 mg/1	No	inst	ream	standar	rd
D.O			**				11	2.9 mg/1			_	5mg/1	1
otal Coliform		19,300/100 ml.	;;			"	,,	3250/100 ml (mean)				5M/10	00m1
of all monthly flows of re	agricultural products process e flows fall below the average ecord for either the months of the D.O. Standard does not ag	ge of the lowest 10% of April or May,									-		
whichever is lower, then	the b.v. Standard does not a	ppiy.										+	
												1	

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Otter Tail Power Co., Wahpeton

ANTICIPATED IN SECURITY PARAMETERS    Contain Committee   Contain	ATER QUALIT
(From TABLE III) (See TABLE I) 72 73 74 75 76 (See TABLE II) 72 73 74 74 75 76 (See TABLE II) 72 73 74 74 75 76 (See TABLE II) 72 73 74 74 75 76 (See TABLE II) 72 73 74 74 75 76 (See TABLE II) 72 73 74 74 75 76 (See TABLE II) 72 73 74 74 75 76 (See TABLE II) 72 73 74 74 75 76 (See TABLE II) 72 73 74 74 75 76 (See TABLE II) 72 75 76 76 (See TABLE II) 72 73 74 74 75 76 76 (See TABLE II) 72 73 74 74 75 76 76 (See TABLE II) 72 73 74 74 75 76 76 75 76 76 75 76 76 75 76 76 76 76 76 76 76 76 76 76 76 76 76	r flow)
CFrom TABLE III)   (See TABLE I)   72 73 74 75 76   (See TABLE II)   72 73 74	SLE III)
BOD5 progress 833 #/d reductions 5.7 mg/1 Nc instream progress 714 #/d no data " 5.5 mg/1  TSS 714 #/d no data " 5.5 mg/1  Total Coliform 3560/100 (mean) 3560/100 (mean)  *Standard changes during agricultural products processing season. If the flows fall below the average of the lowest 10% of all monthly flows of record for either the months of April or May, whichever is lower, then the D.O. Standard does not apply.	7 FY 76
TSS 714 #/d no data "  DO 5.5 mg/l  Total Coliform 3560/100 (mean)  *Standard changes during agricultural products processing season. If the flows fall below the average of the lowest 10% of all monthly flows of record for either the months of April or May, whichever is lower, then the D.O. Standard does not apply.	td.
*Standard changes during agricultural products processing season.  If the flows fall below the average of the lowest 10% of all monthly flows of record for either the months of April or May, whichever is lower, then the D.O. Standard does not apply.	
*Standard changes during agricultural products processing season.  If the flows fall below the average of the lowest 10% of all monthly flows of record for either the months of April or May, whichever is lower, then the D.O. Standard does not apply.	+
*Standard changes during agricultural products processing season.  If the flows fall below the average of the lowest 10% of all monthly flows of record for either the months of April or May, whichever is lower, then the D.O. Standard does not apply.	5mg/1
If the flows fall below the average of the lowest 10% of all monthly flows of record for either the months of April or May, whichever is lower, then the D.O. Standard does not apply.	5M/100m1
If the flows fall below the average of the lowest 10% of all monthly flows of record for either the months of April or May, whichever is lower, then the D.O. Standard does not apply.	
of all monthly flows of record for either the months of April or May, whichever is lower, then the D.O. Standard does not apply.	

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Minnkota Power Coop. - Grand Forks

			The Part of the Pa	DECOME HURSE OUTTON	AND TO THE OWNER OWNER
	AGGREGATED ACTION TITES REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr. ~ ave)	WASTE LOADS REDUCTION (SEE TABLL III)	PRESENT WATER QUALITY	ANTICIPATED WATER QUALI (7-day-10 year flow)
WATER QUALITY PARAMETERS	REQUIRED FOR REDUCTION	(24 hr. ~ ave)	(SEE TABLE III)		(SEE WOS & TABLE III)
MATER CONDITT TARAMSTERS				•	(022
1			FY FY FY FY		FY FY FY FY
	(From TABLE IlI)	(See TABLE I)	72 73 74 75 76	(See TABLE II)	72 73 74 75 76
	Develop water quality		Determination will be	1	
BOD <sub>5</sub>	effluent standards and obtain commitments	1500 #/40	made regarding needed	1 17 0 /1	l vila la la la la la la la la la la la la l
	Obtain Commitments	1500 #/day	reductions	17.0 mg/1	No in-stream standard
TSS	1	5000 #/day		No data	No in-stream standard
DO				3.2 mg/1	5mg/1
		<u> </u>		3.2 mg/1	July 1
Total Coliform		Data not available		3970/100 m1	5000/100m
		[			1
					<del>├┈─├──<del></del></del>
	agricultural products processi	ng season.			
	the average of the lowest 10%				
of all monthly flows of	record for either the months of	f April or May,			
whichever is lower, then	n the D.O. Standard does not ap	bta•			
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INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Pillsbury-Grand Forks

WATER QUALITY PARAMETERS	AGGREGATED ACTION ITLIS REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)	UASTE LOADS REDUCTION (SEE TABLE III)	PRESENT WATER QUALITY	ANTICIPATED WA (7-day-10 year (SEE WQS & TAB	flow)
	(From TABLE III)	(See TABLE I)	FY FY FY FY FY 72 73 74 75 76	, (See TABLE II)	FY FY FY FY 72 73 74 75	FY 76
BOD5	Develop effluent stds. and obtain commitments letter	37.2#/day	Determination will be made regarding needed reductions.	17.0 mg/1	No instream st	
TDS		9160 #/day		No data	п	
DO		No data		1.1 mg/1		5mg/1
Total Coliform		No data	•	3970/100ml		5M/100m1
*Standard changes during ag If the flows fall below the	gricultural products process a average of the lowes: 10% cord for either the months o	ing season.				
whichever is lower, then th	ne D.O. Standard does not ap	ply.				

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: USDI-Baldhill Dam Nat'l Fish Hatchery, Valley City

	AGGREGATED ACTION TILES	PRESENT WASTE LOADS	WASTE LOADS REDUCTION	PRESENT WATER QUALITY	ANTICIPATED (7-day-10 ye	WATER QUALITY
NIER QUALITY PARAMETERS	REQUIRED FOR REDUCTION	(24 hr ave)	(SEE TABLE III)		(SEE WQS & T.	
	(From TABLE Ill)	(Sec TABLE I)	FY FY TY FY FY 72 73 74 75 76	(See TABLE II)	FY FY FY 72 73 74	
BOD5	Develop effluent standards and obtain commitment lett		Determination will be made regarding needed	16 mg/1	No in-stream	std.
TSS		6 #/day	reductions.	No data	No in-stream	std.
DO				5.0 mg/1		5mg/1
Total Coliform		No data		4000/100m1		5000/100ml
If the flows fall below of all monthly flows of a	agricultural products proce the average of the lowest 10 record for either the months the D.O. Standard does not	of April or May.				
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				_		
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### INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: USDI Nat'l Fish Hatchery, Valley City

MATER QUALITY PARAMETERS	AGGREGATED ACTION HEALS REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)	WASTE LOADS REDUCTION (SEL TABLE III)	PRESENT WATER QUALITY	(7-	-day-	-10 y	year	TER Q flow LE II	
	(From TABLE Ill)	(See TABLE I)	77 FY FY FY FY 72 73 74 75 76	(See TABLE II)	FY 72	FY 73	FY 74	FY 75	FY 76	
BOD <sub>5</sub>	Develop effluent standards and obtain commitment letter.	<1#/day	Determination will be made regarding needed reductions.	16 mg/1	No	in-	strea	m_s	anda	rd
TSS		<1#/day		No data		"	11		"	
DO				5.0 mg/l					mg/	
Total Coliform		No data		4000/100 ml				50	00/15	00m1
If the flows fall below the of all monthly flows of rec	ricultural products proces average of the lowest 10% ord for either the months o e D.O. Standard does not ap	f April or May.								
	1									
	,						-			

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Abercombie WWTP

VELR QUALITY PARAMETERS	AGGREGATED ACTION TUBES REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)	WASTE LOADS REDUCTION (SEE TABLE III)	PRESENT WATER QUALITY	ANTICIPATED WATER QUALI (7-day-10 year flow) (SEE WOS & TABLE III)						
	(From TABLE ILI)	(See TABLE I)	FY FY FY FY ITY 72 73 74 75 76	, (See TABLE II)	FY FY FY FY FY 72 73 74 75 76						
BOD5	Construct secondary	133 #/d	119	nearest downstream station is at Fargo-data without meaning							
TSS		156 #/d	143								
DO					5mg,	/1					
Total Coliform		no data	.		5M/1	000m1					
*Standard changes during ag If the flows fall below the of all monthly flows of rec whichever is lower, then th	average of the lowest 109 average of the lowest	of April or Mav,									
			<del></del>								

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Amenia

WATER QUALITY PARAMETERS	AGGREGATED ACTION THEIS REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)				S RE		'ION	PRESENT WATER QUALITY	(7-	-day·	ATED -10 y	ear	flov	
	(From TABLE III)	(See TABLE I)	ΓΥ 72	FY 73	FY 74	FY 75	FY 76	<u> </u>	(See TABLE II)			FY 74			
BOD <sub>5</sub>	Construct new WWTP.	17 #/day		 	15		!		No station on Rush River	No	ins	rear	ı_WQ:		
TSS		20 #/day		<u> </u>	18		!			No	ins	rear	ı WQ:	<b>3</b>	<del></del>
DO													!	img/l	·
Total Coliform		No data												000/	100mL
*Standard changes during a	gricultural products process	ing season.													
of all monthly flows of re	cord for either the months of the D.O. Standard does not ap	of April or May.													
						_									
									·						
										1				ļ	

### INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Wahpeton Wastewater Treatment Plant

WATER QUALITY PARAMETERS	AGGREGATED ACTION 111 'MS REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)	UASTE LOADS REDUCTION (SEE TABLE III)	PRESENT WATER QUALITY	(7-day-	ATED WATER QUALIT 10 year flow) S & TABLE III)
	(From TABLE III)	(See TABLE T)	FY FY FY FY FY 72 73 74 75 76	(See TABLE II)	FY FY 72 73	FY FY FY 74 75 76
BOD <sub>5</sub>	Construct improvements to	WWTP 2100 #/day	1467	5.7	No in-	stream WOS.
TSS		2500 #/day	1760	No data	No in-	tream WOS.
DO				5.5 mg/l		5.0mg/1
Total Coliform		No data		3560/100 m1		5000/100ml
of all montuly flows of re	e average of the lowest 10% cord for either the months of the D.O. Standard does not ap	f April or May,				

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Crafton, N.D. - Park River - Red River

n TABLE IlI)  ovements currently r way.	(See TABLE I)  1740 #/day  2760 #/day		FY 73 570	FY 7.4	FY 75	FY 76	, (See TABLE II) 54 mg/l	FY 72 No	73	74	FY 75 am WQ	76
	2760 #/day						54 mg/l	No	in-	stre	am WQ	_
		1	380				<del></del>	<del>  </del>				·
		1	<del>  </del>	$\perp$			148 mg/1	No	in-	stre	am WQ	s.
,	No Jata						.9 mg/l				51	mg/1
	No data					_	47400/100 ml				50	00/100ml
age of the lowest 10% or either the months o	f April or May,			-							,	
a o	<del>ige of the lowest 10%</del> or either the months o	tural products processing season.  Ige of the lowest 10%  In either the months of April or May,  Standard does not apply.	ge of the lowest 10% or May.	ge of the lowest 10% or either the months of April or May.	ge of the lowest 10% or May.	rge of the lowest 10% or either the months of April or May.	rge of the lowest 10% or either the months of April or May,	rge of the lowest 10% or either the months of April or May.	rge of the lowest 10% or either the months of April or May.	rge of the lowest 10% or either the months of April or May.	rge of the lowest 10% or either the months of April or May.	rge of the lowest 10%

INDIVIDUAL SOURCE OR CLUSTER OF SOURCES: Fosston, Minnesota

MATER QUALITY PARAMETERS	AGGREGATED ACTION THEMS REQUIRED FOR REDUCTION	PRESENT WASTE LOADS (24 hr ave)	WASTE LOADS REDUCTION (SEE TABLE III)	PRESENT WATER QUALITY  (See TABLE II)	ANTICIPATED WATER QUALITY (7-day-10 year flow) (SEE WQS & TABLF III)				
	(From TABLE III)	(See TABLE I)	FY FY FY FY FY 72 73 74 75 76		FY FY F 72 73 7	Y FY FY 4 75 76			
BOD <sub>5</sub>	Work with Region V to determine needs.	9,000 #/day	Needed reductions will be determined	No data					
TSS		10,500 #/day							
DO									
Total Coliform									
		·							