ALASKA DEPARTMENT OF FISH AND GAME
SPORT FISH DIVISION

FISH POPULATION CONTROL A,
PRE-CHEMICAL RESTORATION PLAN

GENERAL

Region II Lake or Stream Tirmore Lake* Clearance obtained from None

Federal Clearance (date) _____ State Clearance (date) None Land Managing Agency State & Private

1. Physical Characteristics: a,b. Borough Kenai t 7N r 11W s 8,17 Lat 60°43' Long 151°14' U.S. Map Call Out # K-C-4

Surf: acres 52 (when surveyed) Max. depth 36 Avg. depth 17.1 Acre feet 890 Established B.M. location _____

Describe method used in establishing information for contour map Aerial photograph and recording fathometer

Lake was previously reclaimed in (year) No Toxicant used _____ Result _____

c. Outlet None

d. Inlet (number, miles, flow & description) None

e. Estimated duration of toxicity 60-90 days

f. Shoreline and lake bottom description (springs, seeps, bogs, swamp, shallow areas, aquatic vegetation) Bog area with some vegetation at the south end of the lake. No springs noted

2. Fishery Characteristics: a. Target fish Threespine stickleback Population composition Threespine stickleback'

c. Sample method used Gill Nets and visual observation d. Most recent survey date July 15, 1964

3. Status of Existing Fishery: Fish growth and or survival and collection means (creel census, net, etc.) None but locals have reportedly stocked salmon from Bishop Creek into the lake.

4. Restoration Plan: a. Toxicant Pro-nox fish Percent or weight (active ingredient) 5% rotenone Form to be applied Liquid

Application rate (active ingredient) 1.1 ppm c. Method of application Boat pumps time 8 month Sept. 1972

d. Quantity required 350 (gal. or lbs.) Acre feet to be treated 890 (lake or stream) lake

e. Number of sub-area treatments and description of sites No sub-areas

f. Areas to be treated with caution None

g. Precautions to be taken in downstream areas (if none are needed, state why). No outlet stream

h. Chemical rehabilitation benefits Improved survival and growth of stocked fish i. Monitoring Periodic test fish samples

5. Water-Physical Chemistry Properties: a. ph 7.0 Methyl orange alkalinity 16 Total alkalinity 16 b. TDS dissolved solids 42 Conductivity Date(s) 5/27/75 6. Estimated Project Cost: Lbs or gallons/ 1.39 acre feet @ 3.75 cents per lb. or gal. = $ 1.46 Toxicant requirements 350 gal @ $ 3.75 /gal = $ 1,315 lbs @ $ _____ lb. = $ _____ Man days 8

Wage $ 400 Per diem $ 0 Travel 60 Barrier dam (if required) type limestone $ _____

M & O cost: List None $ _____ Other cost (items) _____

_____ $ _____ Total estimated cost $ 1,775

7. Planned initial fish stocking:

DATE	SPECIES	INCHES	POUNDS	NUMBER
Late July	RT	120/lb		15,600

8. Public Considerations: a. Is water to be used locally for domestic, industrial or irrigation purposes? No

b. Public access assured (how) section line access (66 ft.) c. If the affected waters contain any rare or endangered species, describe the measures to be undertaken for their protection None

d. Procedure for salvage and disposal of fish killed None. No game fish in lake

e. Cooperating agencies (attitude and support) None

f. General attitude of the public to the project Favorable

g. Remarks * Also called Short Pine Lake

ALASKA DEPARTMENT OF FISH AND GAME
SPORT FISH DIVISION
FISH POPULATION CONTROL B.
POST-TREATMENT EVALUATION, CHEMICAL RESTORATION

Region II Project Number _____ Project Name _____ Submitted by S. Logan Date 1/27/76

Lake or Stream Tirmore Lake Location: T. 7N R. 11W S. 8,17 Map Reference K-C-4 Lat. 60°43' Long. 151°14'

Borough Kenai Chemical Treatment (date) Sept. 8, 1972

1. Surface area at treatment 52 (acres) Water Volume 890 (acre-feet) Tributaries:

Name	Flow	Total Length	Length Treated
None			
		TOTAL	

Outlet(s):

Name	Flow	Total Length	Length Treated
None			
		TOTAL	

2. Stream(s) treated None total miles Main streams:

Name	Flow	Total Length	Length Treated

Tributaries:

Name	Flow	Total Length	Length Treated
		TOTAL	

3. Toxicant used (lake) 5% emulsified rotenone (tributary) None

4. Methods used in distributing the toxicant: Boat Pump

5. Cost of Project:
(items) Rotenone $ 1,315
(items) Salary $ 400
(items) Per Diem & Travel $ 60
(items) _____ $ 1,775

6. Condition of water on date of treatment:

Depth (feet) or flow (cfs)	Temperature (°F)	pH	Dissolved Oxygen Content
0	58.5	7.0	10.5
12	58.5	7.0	10.5
24	58.0	7.0	10.0
36	50.0	6.9	9.5

Total Dissolved Solids 42 Conductivity

7. Species and estimated observed numbers of fish eradicated:

Lake (Stream)		Inlet (Tributaries)	
Threespine stickleback	Abundant	None	
Red Salmon*	Few		
Longnose Sucker*	Few		

8. Period of Toxicity 60-90 days estimated

9. Method of determination of effectiveness: Test fish and shoreline survey

10. Detoxification: Non-chemical (natural) Natural Outlet Control Structure Operation Date _____

Chemical _____ Application dates _____ Amount applied _____ Cost of chemical $ _____

Results _____

11. Public reaction to project (after treatment) Favorable

12. Comments on angler use (after treatment) Increased slightly

13. Additional remarks: *These species illegally stocked by local people probably trapped from Bishop Creek.