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DESCRIPTION			نـــــــــــــــــــــــــــــــــــــ	1994	· · · · · · · · · · · · · · · · · · ·	·	T	 	Tributter	entra esta en	1995	Υ	<u> </u>	imu les-	166.1-	EB MAR	1 DD 1 1441	. 19	9.6.	Tees IA	WT APV) DEC	1997	REMARKS
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Preparation Works	Quantity Unit	++++	-{-{- {- { -		 	╂═╂╌╂╌╂╌	 	1-1-	 	111		<u>1-1-1</u>		111		<u> </u>								
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Establishment of Base Ca		-			 	- - -	 - - -	1-1-1-			= - - -	1-1-1-1		 	1-1-1-				7-7-1					
Electricity Power Line	1 L.S.					 	+++		┞╪╪┪						1-1-1-	1-1-1-1		+++	777					
Temporary Access Road			-1-1-1-1	- 1 - 1 - 1		1-1-1-	+++	+++=	╀╌┼╌╏						╁┼┼	++++		1-1-1	-}- - -	+++	+	1-4-4-		
Permanent Road	1 L.S.	- - - -					1=1=							++-	 - - -			+-+-	-		 			
Machinery Transportation		++++		<u> </u>	 		 		╂═╂═╂═╏		= - - -	+++		+++	1-1-1	╀┼┼┼	-1-1-1-			 	+++	 	 	
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Diversion Tunnels		 	-1-1-1																				$\Box \Box \Box$	
Open Excavation, C, W, Ha	18,800 cu.m								1-1-1-1															C, Common S
Concrete of Inlet & Out								1-1-1-						1-1-										W, Weatherd
Tunnel Excavation	12,300 cu.m	++++	- - - - - - -											++-										Ha, Hard Rock
	5,100 cu.m	+++					1-1-					+++			1-1-1	7 1 1 1		111		1-1-1-				
Tunnel Concrete	200 ton	- - - - 			 - - - -		7-7-7	 				1 1 1		111										1
Reinforcement Bar	820 cu.m	+++	= - - - -	 	 - - - -	- - -								十十	1-1-1				$-\Pi$					
Plug Concrete		+++	- - - - -	- + -	 		 		 	╌┼╌┼╌┼		1-1-1-		 - - -	1=1=1=			111		+++			1717	
Pipe & Valve Installation		+++	╍╂═╄╌╂╌╂			 	7 7 7	+++	╪┼┼	= - -	-+	1-1-1-		+++	╂	 	1++	+++	- 	 	777	111		
Portal Facility	1 L.S.	╁╋╂┦	╅╂╂	-	┞ ┼┼┼	++++	╁┼┼	 							<u> -</u> -									
Coffer Dam																		\coprod			1-1-1-	1		
Temporary Coller Dam	4,800 cv.m													ШТ					$\Box\Box$	1-1-1			+	<u> </u>
Open Excavation C,W,Ha	16,800 cv.m	11-1-1		-1-1-1-		† † † †	1.1.1																	
Embankment ,Core	16,700 cu.m					1-1-1-	111																	
Embankment, Filter	8,900 cu.m						FIT																	
Embankment, Outer She		+++	- - - - 			HIF	TT	111	HH						11干									
Embankment, Outer She		+++		++++	 - - - -	1-1-1-1-	+++	111													1_1_1_			
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Main Dam			-1-1-1-1		 		+++	++-						+++	 - - -	+++	+++	++-	+++	+++	+++	+++	+++	
Open Excavation(C,W,Ha)		<u> </u>				 														###	+++	 	╁╁╂┤	
Trench Excavation for G						<u> </u>	╅┷┸				_ - -			 _	477	 .		<u> </u>	-1.1.1	111	1-1-1-	1-1-1	 	+===
Embankment ,Core	166,900 cu.m				ЩП		\coprod	$\coprod \Box$	1-1-				$\bot \bot \bot \bot$		1 7 7			777		<u> </u>				
Embankment, Filter	110,900 cu.m															1						1 1 1		
Embankment, Inner She	ell 59,100 cu.m												ШП								71 L			
Embankment, Outer She																				777	· · · · · ·	1 7 7		
Embankment, Outer She														111			-, -, -			777		, , , , , ,		
Concrete for Grout Gallo		-[-]-[-]			1-1-1-		1-1-1																	
Curtain Growting	5,700 m	++++																		.,				
Blanket Grouting	2,700 m	777			$\Pi\Pi$								<u> </u>											
Instrumentation	1 L.S.	++++						TIT			- 													
Temporary Facility	1 L.S.	+++			 	 	+++	7-1-1-																
remposery recess		<u> </u>													111			\Box		\bot	11-	4-1-	111	
Spillway						1	\coprod					111			+++			##=		++-	- - - -	╬┼┼	+-1-1-	
Open Excavation C.W.Ha				, , , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<u> </u>									بيرا						+++	1-1-1	 	
Concrete	41,000 cu.m															 .	L. J. L. J.				444	1-1-1	 	
Reinforcement Bar	1,230 cu.m												, , , , , , , , , , , , , , , , , , , 								_ _ _	╅┵	 	
Temporary Facility																			\Box	4-1-1	_{-}-	╌┼╌┞	┽┼┼	_
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Waterway Tunnel				=+-		+- - -	+++	+++	+= = =		=====	+++	+++=		╁╁╪	+++	- - -	- - -		- - -	- - -	111	+++=	
Open Excavation C,W,Ha		<u> </u>			++++		++		++-			+++	1-1-1-1			- - - -			<u> - - </u> -	+++	+++	+++	++-	
Concrete of Inlet & Outi									<u> </u>					- 1-1-1		777		77			-+	+++	+++	====
Tunnel Excavation	15,500 cu.m	ПП											+ + + +			111		++	 	111	+	1-1-1	- - -	
Tunnel Concrete	6,000 cu.m								$\perp \perp \perp$			4.1.7											+	
Plug Concrete	200 cu,m																	11	<u> </u>	417				
Pipe & Valve installatio	on 1 L.S.																	T					$\Box\Box$	
Portal Facility	1 L.S.								117			117												
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THE REPUBLIC OF KENYA

MINISTRY OF WATER DEVELOPMENT NATIONAL WATER CONSERVATION AND PIPELINE CORPORATION THE STUDY FOR CONSTRUCTION OF DAM IN MALEWA RIVER SYSTEM GREATER NAKURU WATER SUPPLY PROJECT EASTERN DIVISION

JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE Construction Schedule of Malewa Dam Scheme

DESCRIPTION		7						191	9 4			 -		٠						1	996						 -						19	9 6						1997	-1-16	REMARK	KS
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Preparation Works					*****			***					口																				11										
Intake Facility	1	L.S.																																									
Tunnel	190	m								廿			11																				11								\Box		
Sand Basin		L.S.												廿																1													
Raw Water Mains	9.4	km .																				口		. 80			*	*****				***									11		
Treatment Works		L.S.																					****	****			**						**										
Treated Water Mains to Nakuru	51.0	km																															11	11						\Box			
Treated Water Mains to Naivashs	28.7	km										11					江					仜				***																	
Distribution Facilities to Nakuru & Gilgii		L.S.																															\top										
Distribution Facilities to Naivasha		L.S.																														11	11	17				口口					
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DESCRIPTION						.11_	F 1	20	0.2		1							1		2	003							<u> </u>					20							005		REMARI	KS.
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Preparation Works						<u> </u>				$\perp \perp$						<u> </u>			 -	$\sqcup \bot$		Ш-	1-1		_			Ш			11		<u></u>		 -						1		
Raw Water Mains	9.4	i km	_ _	\mathbf{II}	1-1-			- -	14				\perp		-	<u> </u>	L I	\bot	 -	$oxed{oxed}$	Ц.,	1_1_	11		_							<u> </u>			<u> </u>	Ш	1		Ш.				
Treatment Works		L.S.			\Box																									,,,,,	77		¥¥				, , , .	- P		$\perp \downarrow$		<u> </u>	
Treated Water Mains to Nakuru	51.0	-		\Box	\Box										\bot												* *		, ,			-	T-7	, ,	T-T		J			\bot	_		
Treated Water Mains to Naivasha	28.7	km	\Box										11		\Box								П			- 88			****		****		TT		7 7			<u> </u>		\perp	-11		
Distribution Facilities to Nakuru & Gilgit		L.S.		\Box													\Box	П									**		\prod		\Box												
Distribution Facilities to Naivasha		L.S.													\blacksquare	П												,,,,,,,,	.,	,,,,,,			-] [_		П	1.1.			1			
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DESCRIPTION								20													010												20		CA TAX	-6 1 6				012		PENARI	<u>(S</u>
Slage 2-3	Quantity	Unit	JAN	判	MARI A	PA M	사기	IL W	UL A	ug Is		oct II	NOV	PEC-	JAN	FEB	I MAIT	APR	MAY	JUN	JUL	I AUG	SEF	- 100	I N	DA 10	쒸쒸	74	# ^	AH	APH	MAY .	<u> </u>	141	UG SE	2 10	<u>ΥΗΝ</u>	ᇊᄖ	<u>"</u>	N FEE	┸		
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Treatment Works	1	L.S.	77	7-1		1=1=	F			-11		1-1	1-1	==		Ш	 	1 - 1 -	1-1-	1 - 1 -	11-	1 	1-1		-1-	<u>t t</u>			1 1	1 1	1 1	11	1 1		<i>L</i>	11-		₩.	FT	11	11		
Distribution Facilities to Nakuru & Gilgil	1	L.S.	++	++	++	1-1-	ĦĔ	H	ŦŦ	TT	TT	TT	TT	===	-	ΙŦ	FΤ	H	H	Ħ									H	ŦŦ	77	T	ŦŦ	FF	T	FF	TT	FF		17	+1		
Distribution Facilities to Nalvasha		L.S.	++	++	+	##	 	H	++	++	╁┼	++	##	= -		- -	Ħ	##=	 -	FF		FF			F	FF		 	++	++			1 1	<u> </u>		Ħ	11	FF	H	++	+		
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Rainy Season		\Box	$\Gamma\Gamma$	\coprod	Heav	γ	工	Ш	Ш		П	SI	ight	!	工		H	avy				Ш	П	I	Slig	ht				Hea	νy			\perp	<u></u>		Slig	hi 📗	1	Ш			

THE REPUBLIC OF KENYA

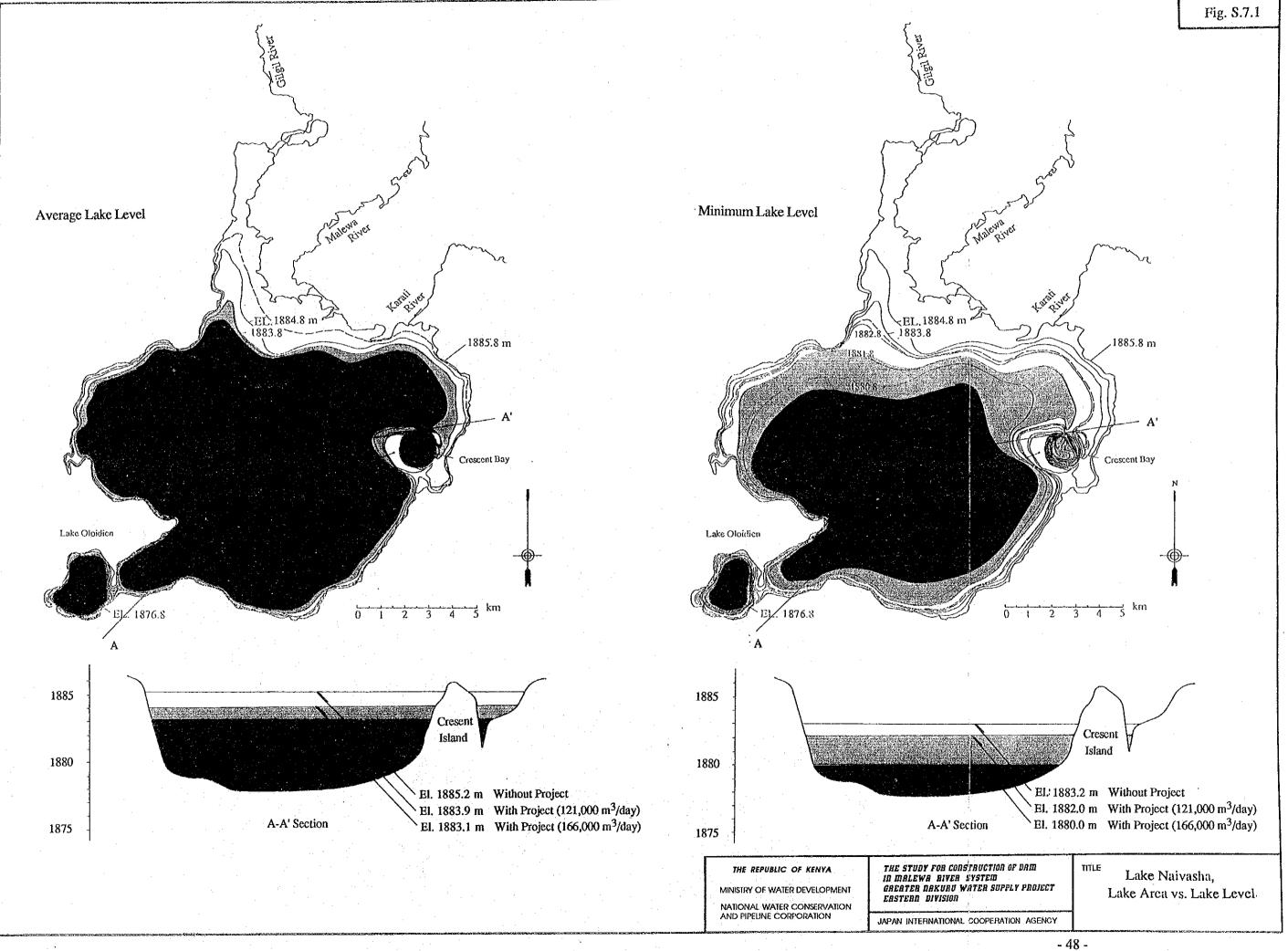
MINISTRY OF WATER DEVELOPMENT

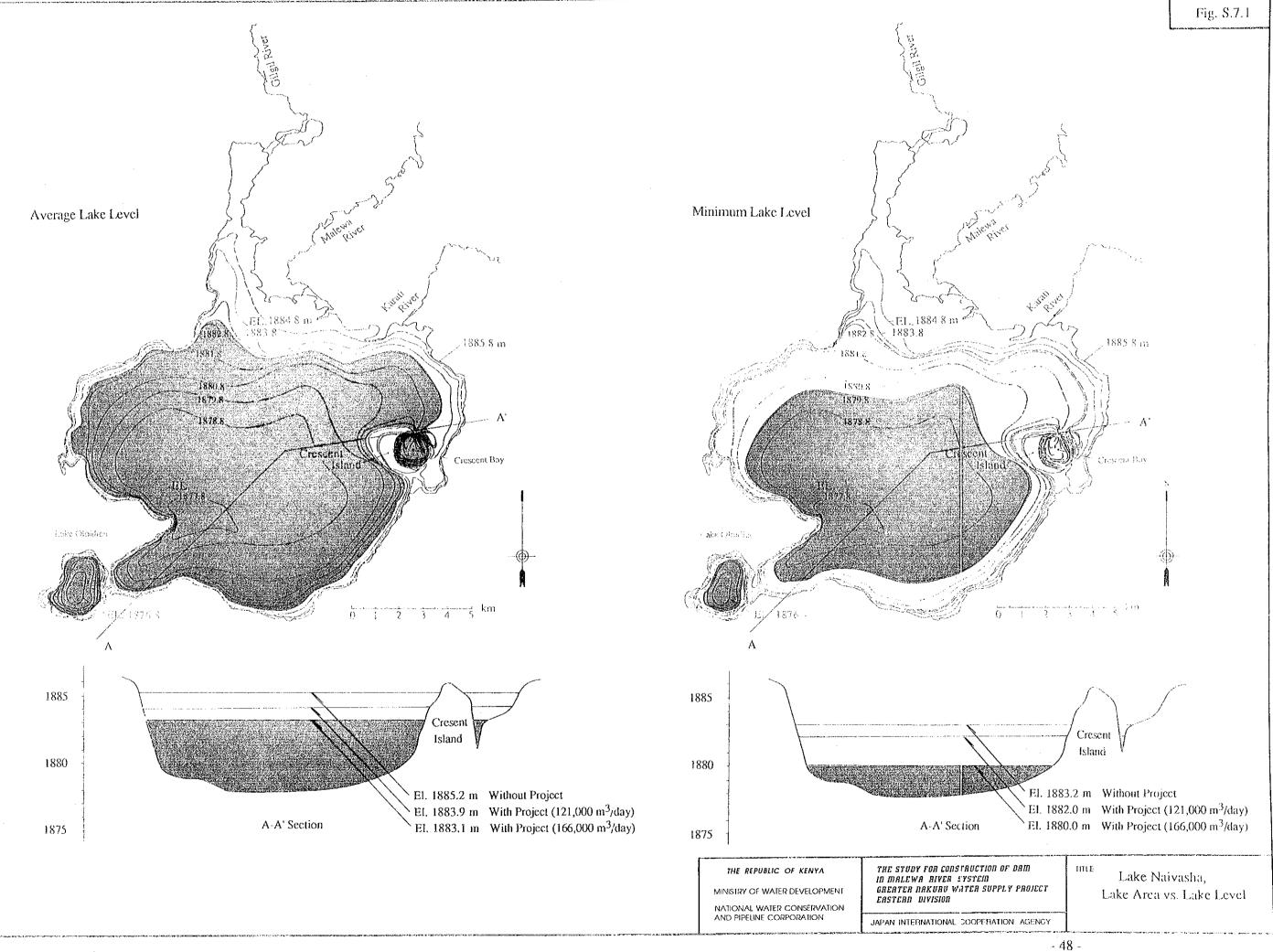
NATIONAL WATER CONSERVATION
AND PIPELINE CORPORATION

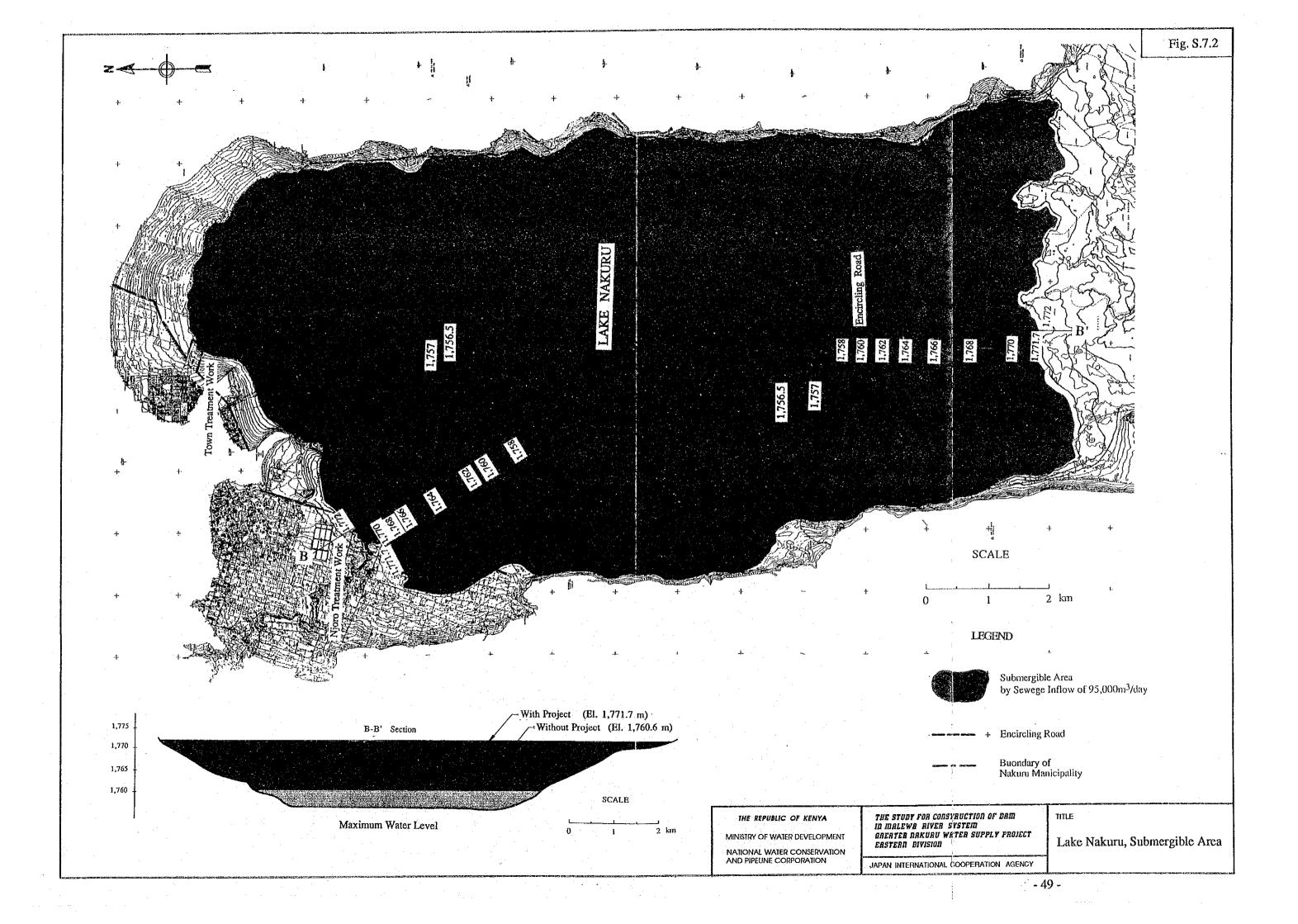
THE STUDY FOR CONSTRUCTION OF DAM IN MALEWA RIVER SYSTEM GREATER NOKURU WATER SUPPLY PROJECT ERSTERN DIVISION

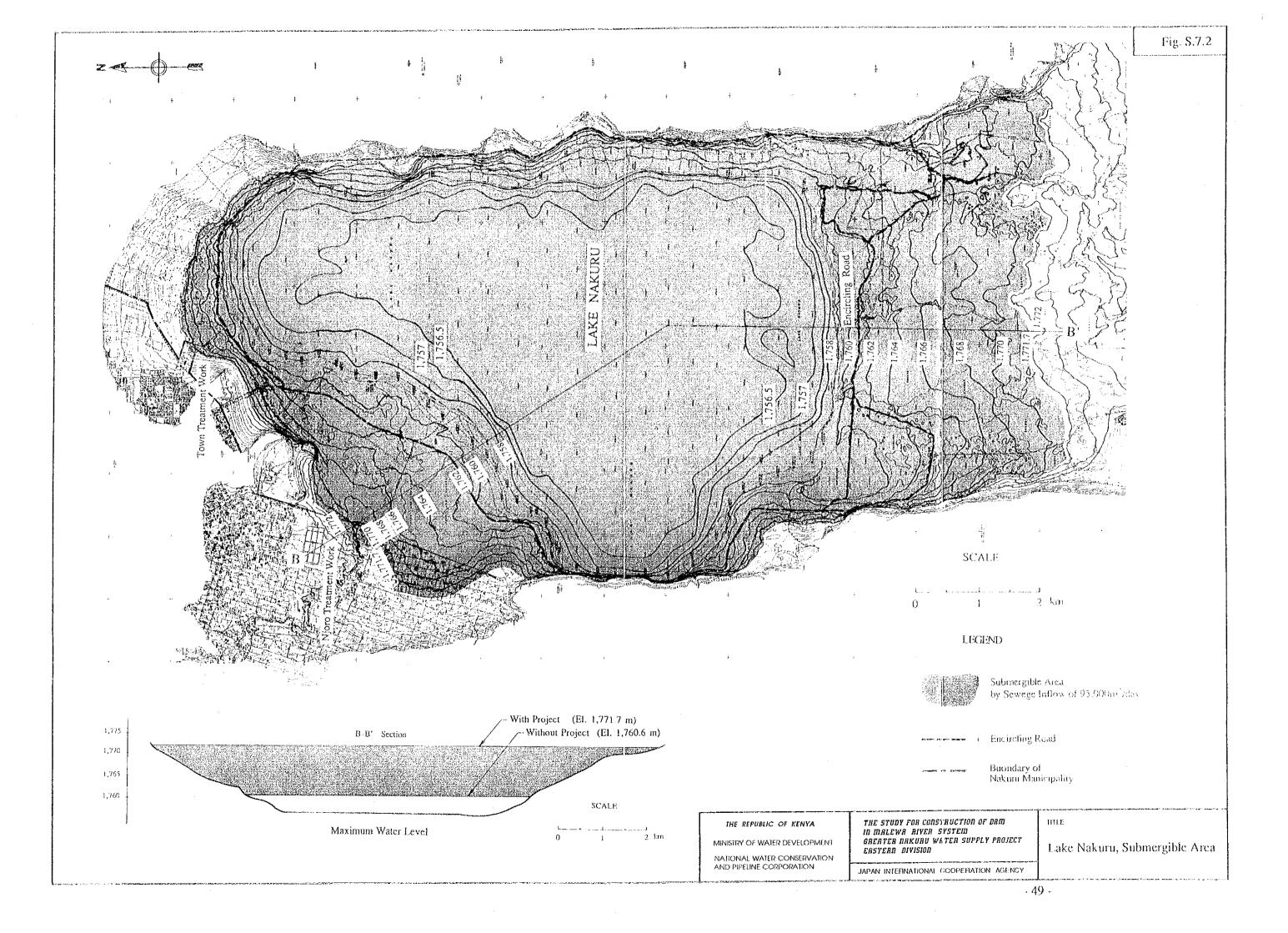
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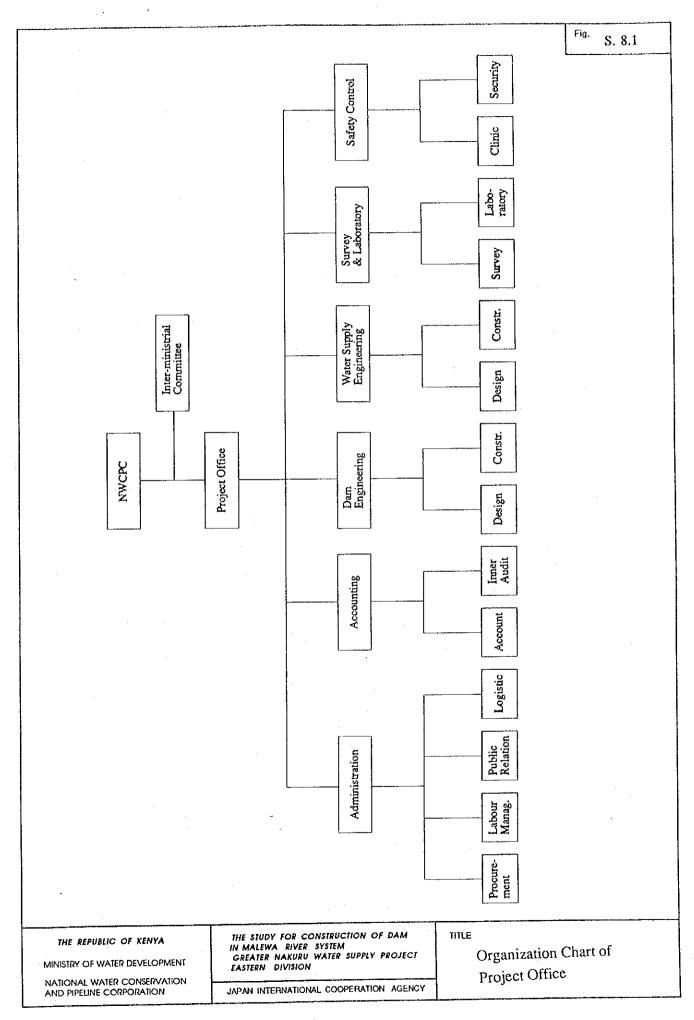
Construction Schedule of Water Supply Scheme

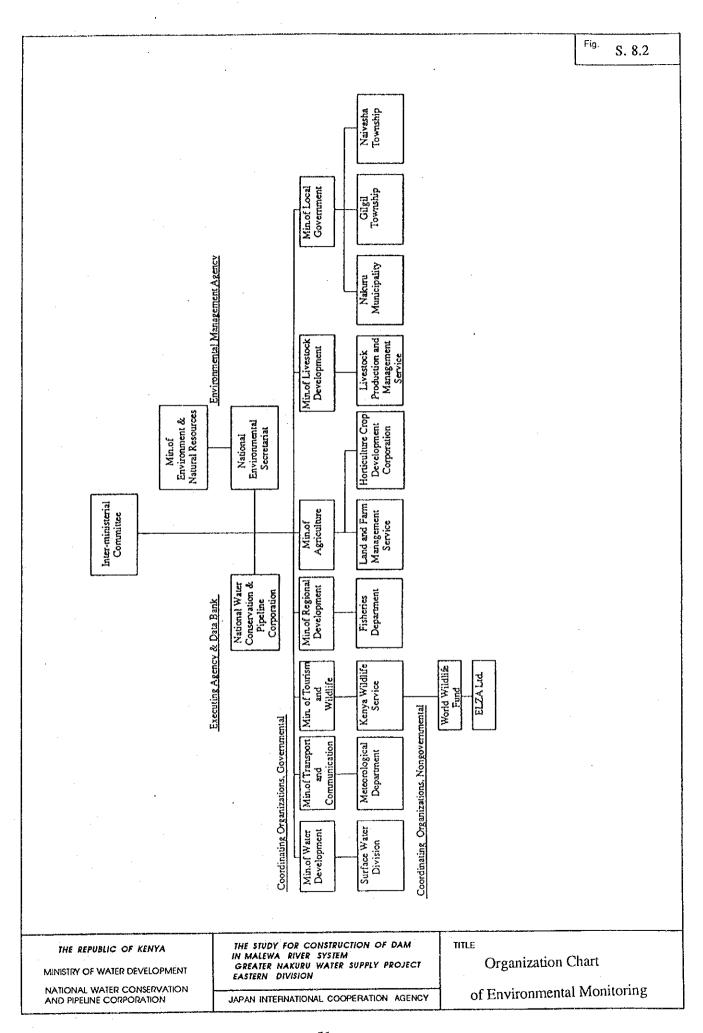


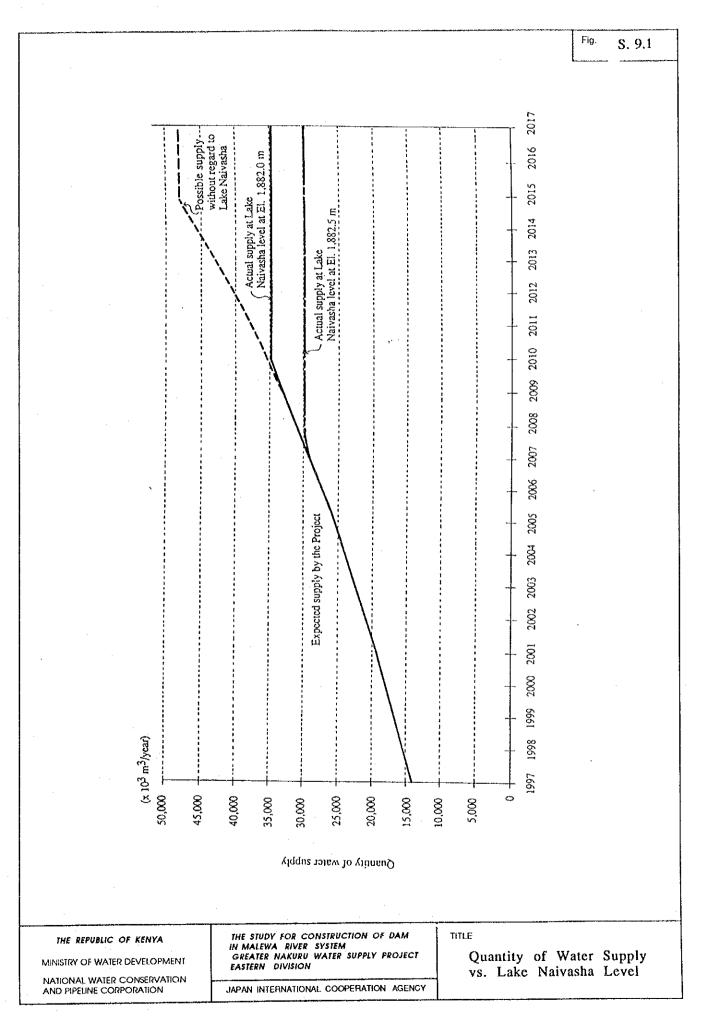




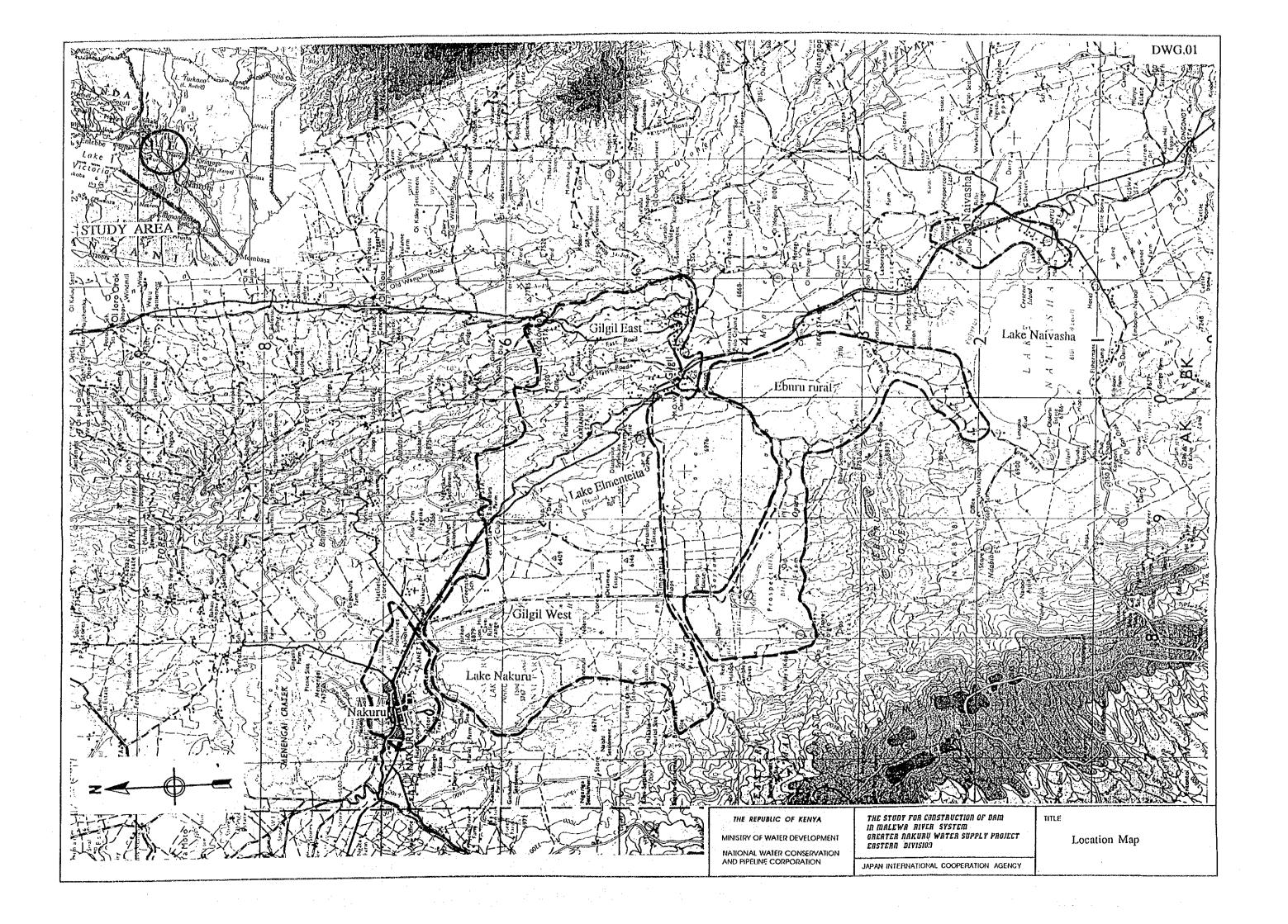


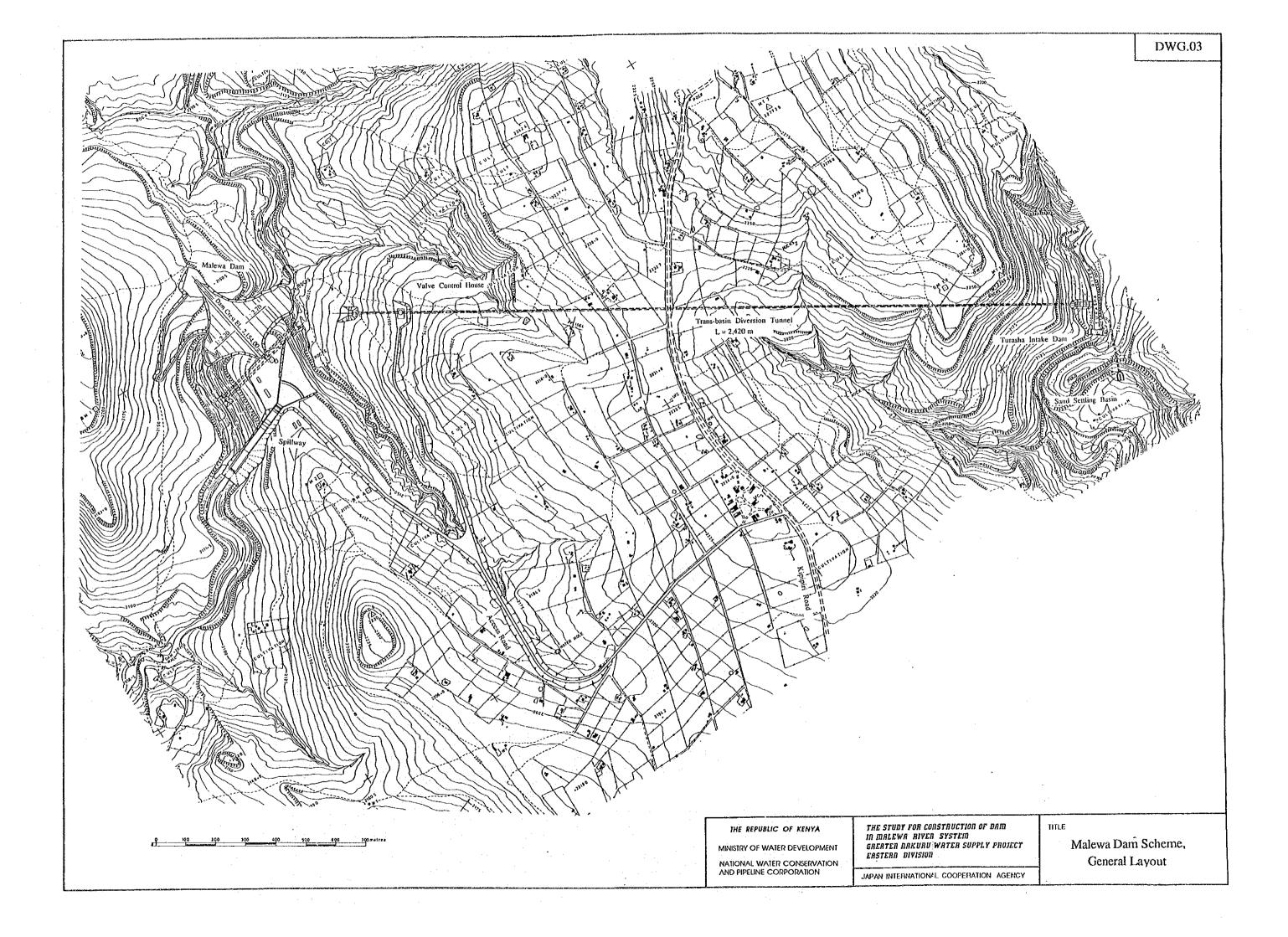


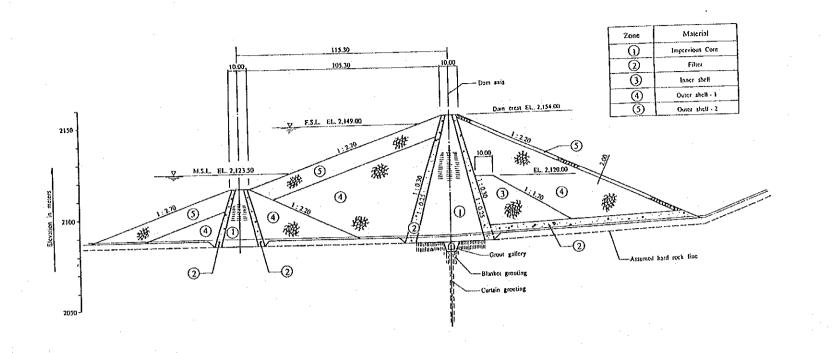




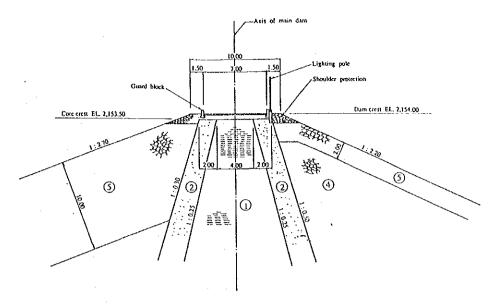
DRAWINGS



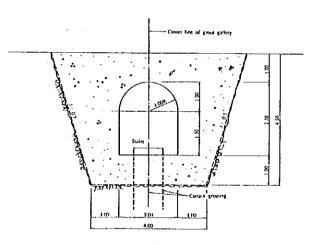




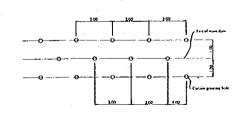
TYPICAL CROSS SECTION SCALE B



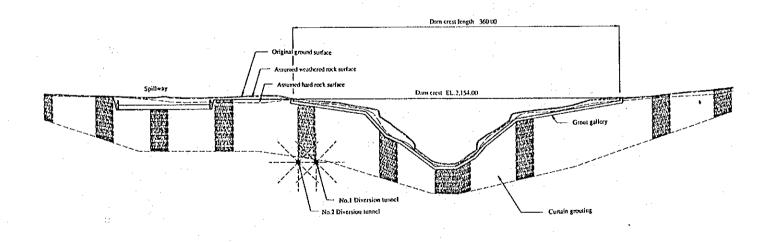
CREST DETAIL SCALE C



GROUT GALLERY SCALE E



ARRANGEMENT OF CURTAIN GROUTING SCALE D



PROFILE SCALE A

Scale A	0	100 m
Scale B	0	50 m
Scale C	0	10 m
Scale D	0	.5 m
Scale E	0	3 m

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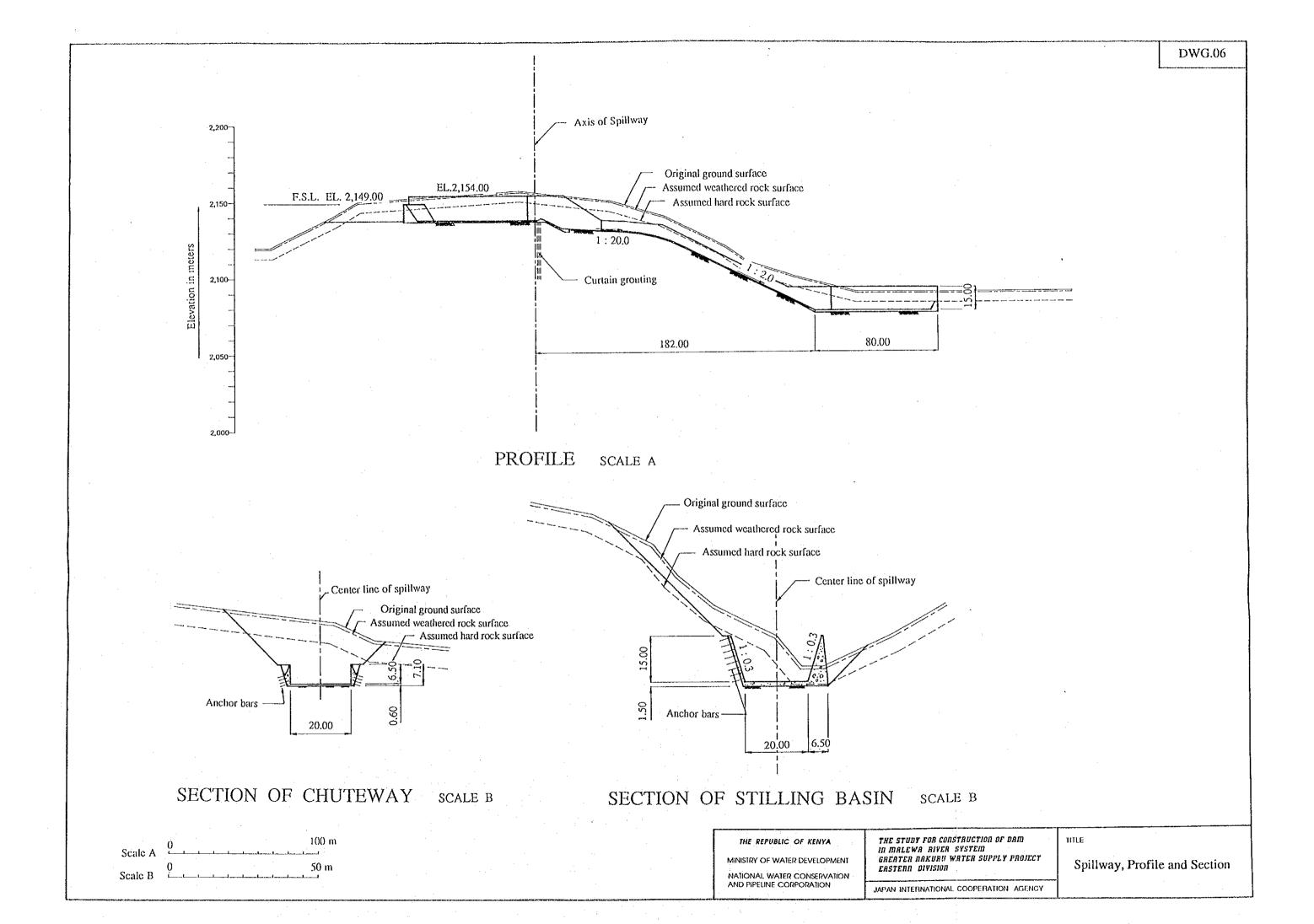
MINISTRY OF WATER DEVELOPMENT
NATIONAL WATER CONSERVATION
AND PIPELINE CORPORATION

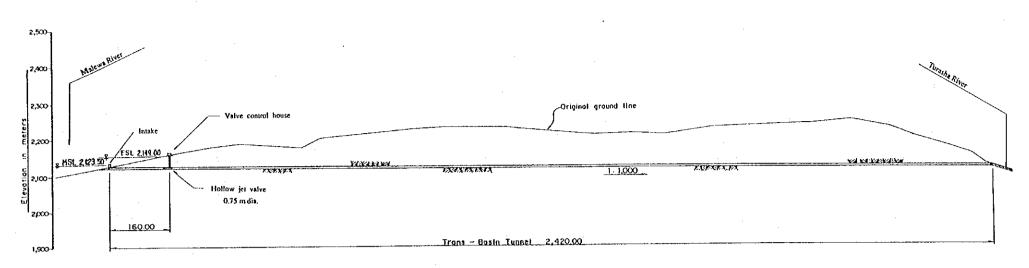
THE STUDY FOR CONSTRUCTION OF DAM IN MALEWA RIVER SYSTEM GREATER NAKURU WATER SUPPLY PROJECT ERSTERN DIVISION

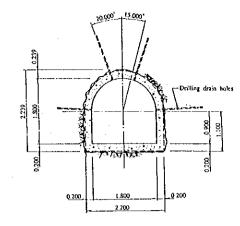
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE

Main Dam, Typical Cross Section and Profile

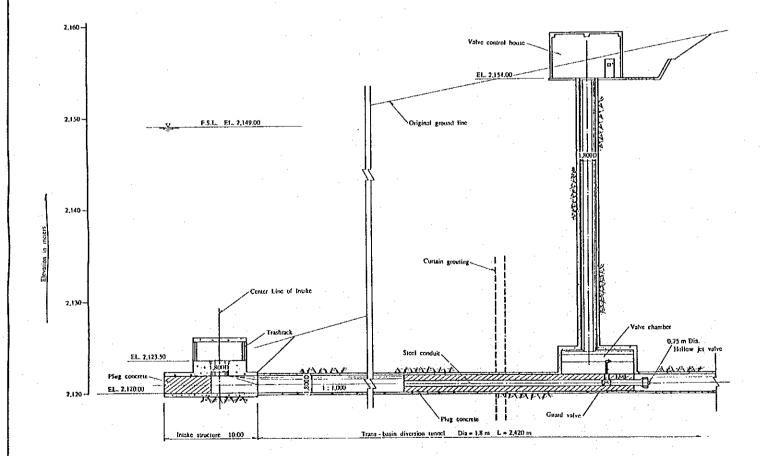


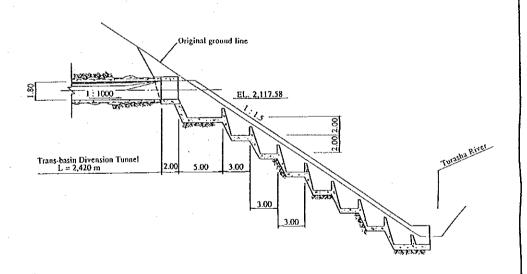




TUNNEL CROSS SECTION SCALE C







OUTLET OF TUNNEL SCALE B

PROFILE OF INTAKE SCALE B

Scale A	0	500 m
Scale B	0	20 m
Scale C	0	5 m

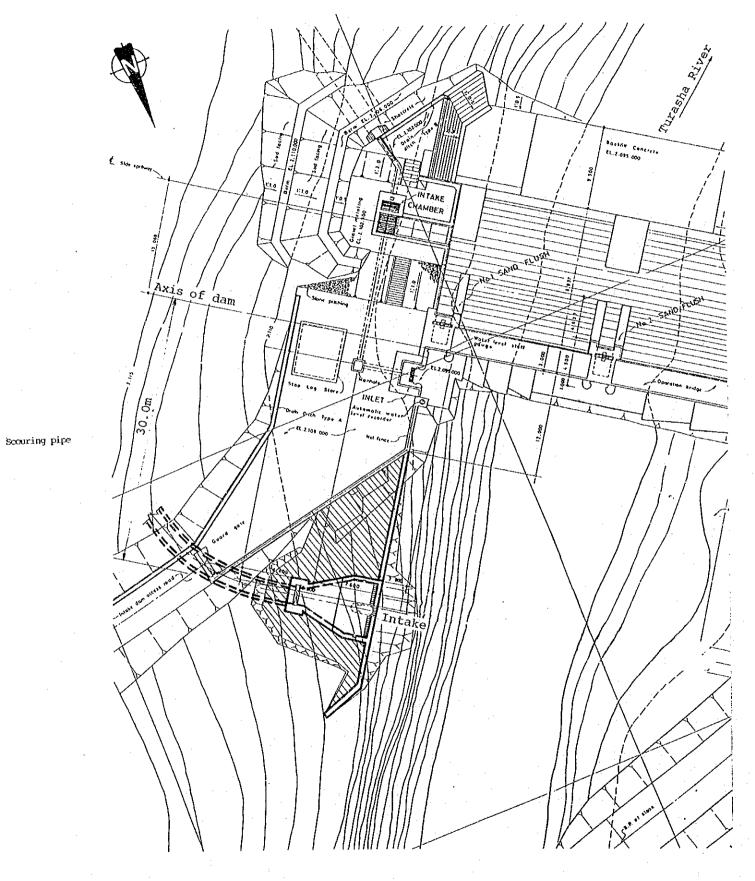
THE REPUBLIC OF KENYA
MINISTRY OF WATER DEVELOPMENT
NATIONAL WATER CONSERVATION AND PIPELINE CORPORATION

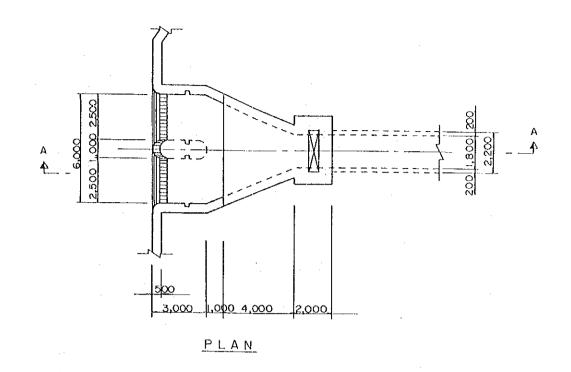
THE STUDY FOR CONSTRUCTION OF DAM IN MALEWA RIYER SYSTEM GREATER NAKURU WATER SUPPLY PROJECT EASTERN DIVISION

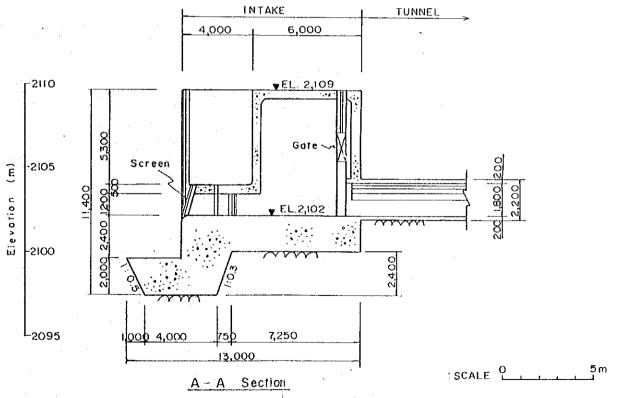
JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE

Trans-basin Diversion Tunnel, Intake and Outlet







THE STUDY FOR CONSTRUCTION OF DAM IN MALEWA RIVER SYSTEM GREATER NAKURU WATER SUPPLY PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

EASTERN DIVISION

THE REPUBLIC OF KENYA

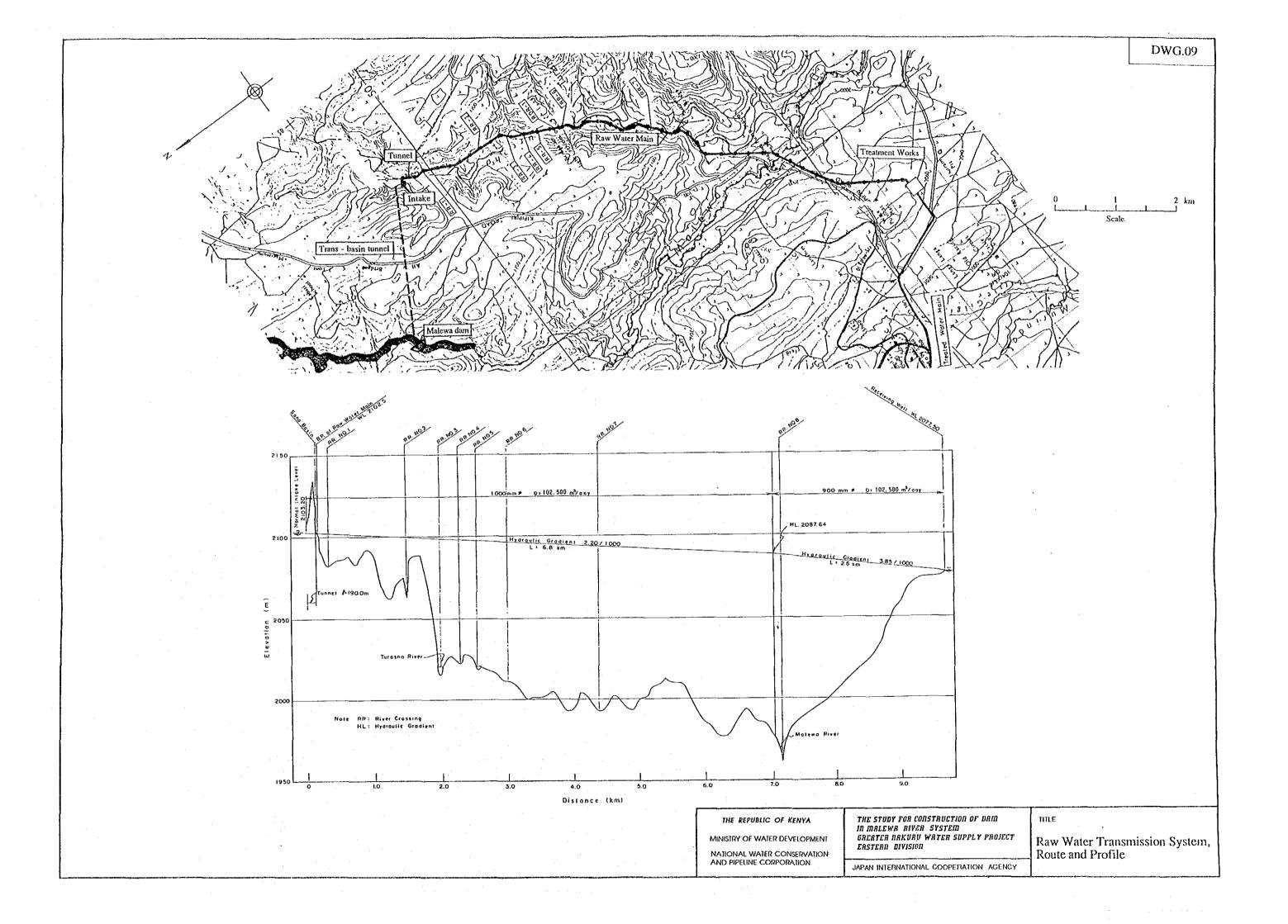
MINISTRY OF WATER DEVELOPMENT

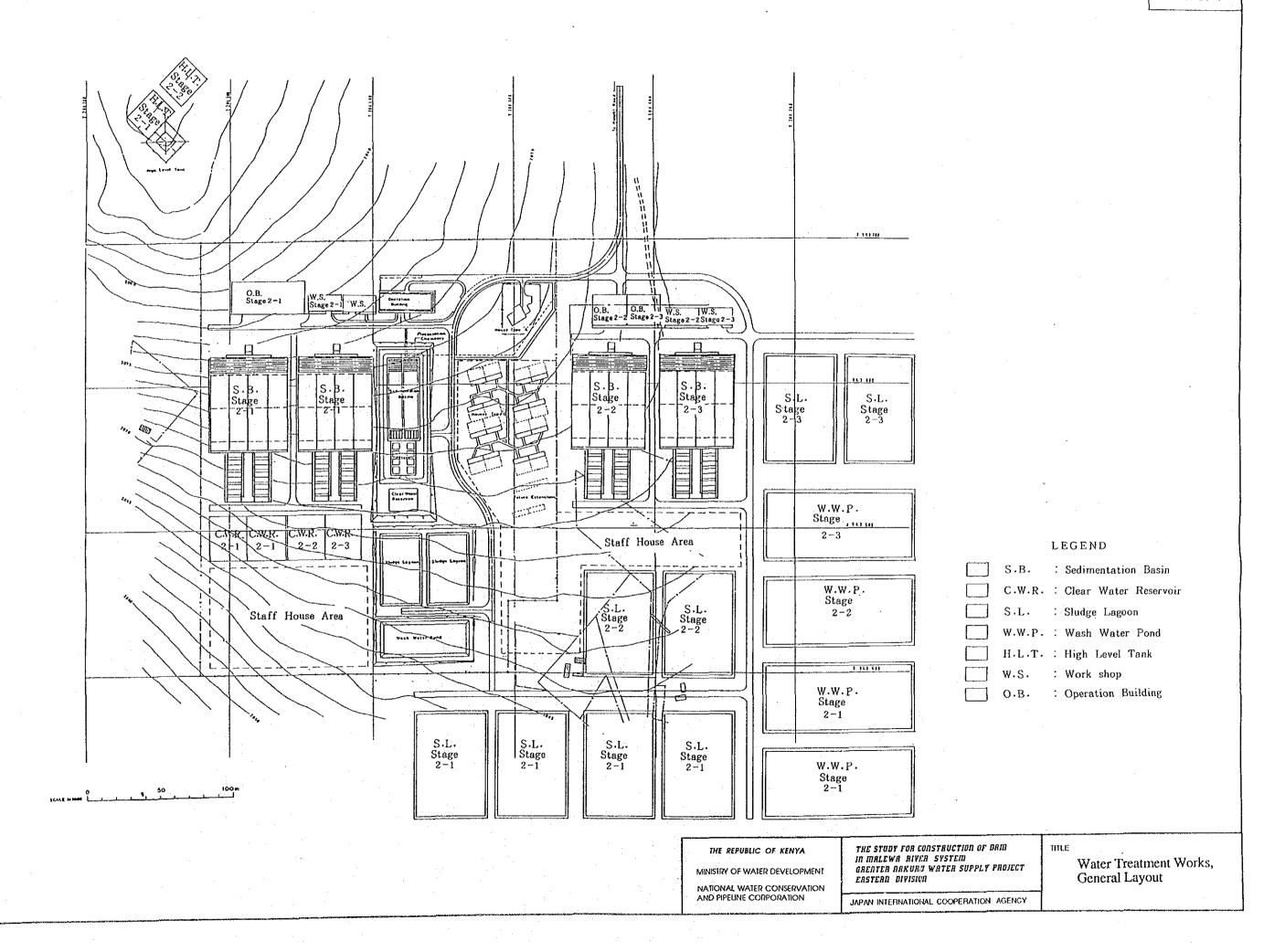
NATIONAL WATER CONSERVATION AND PIPELINE CORPORATION

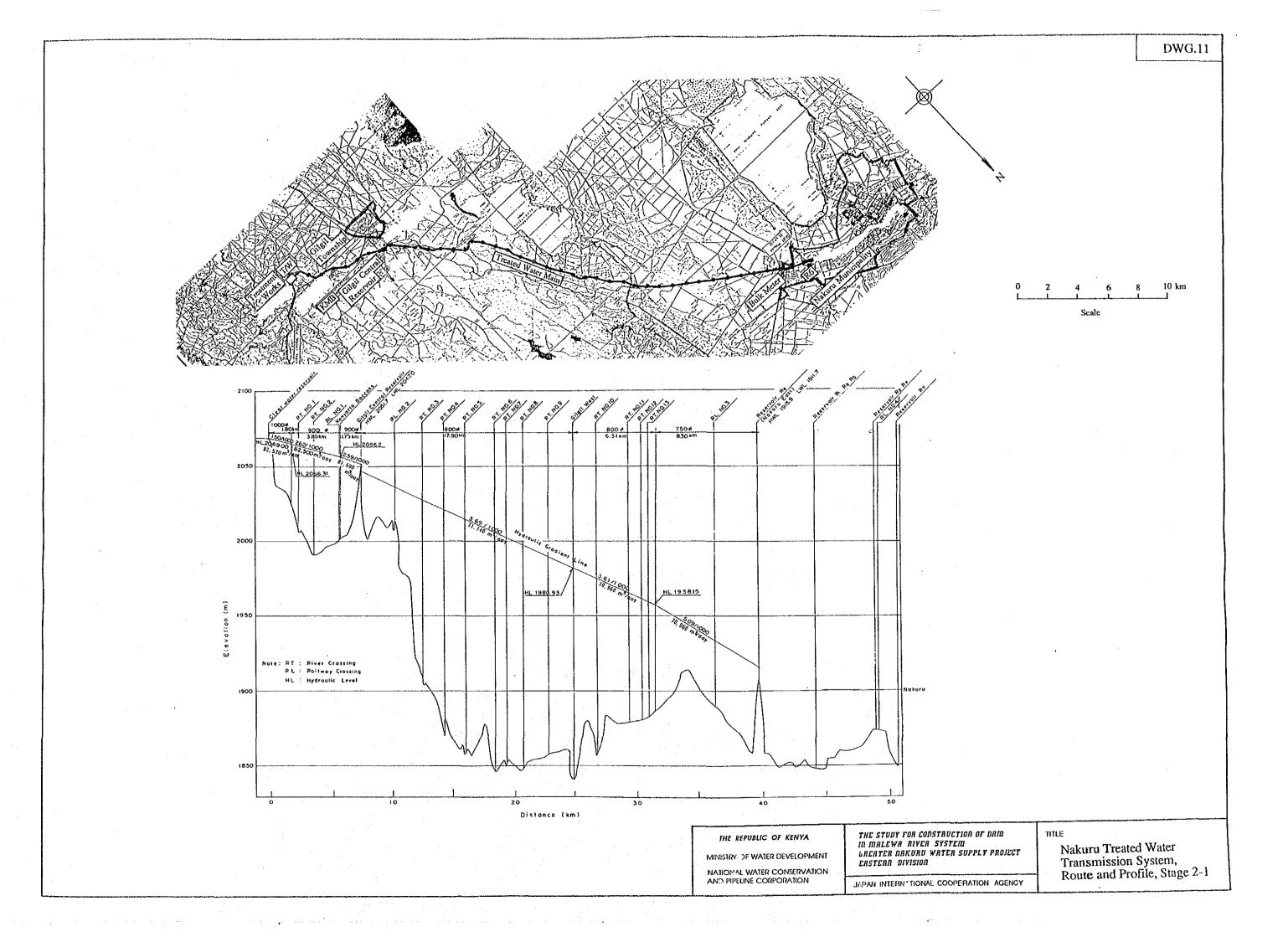
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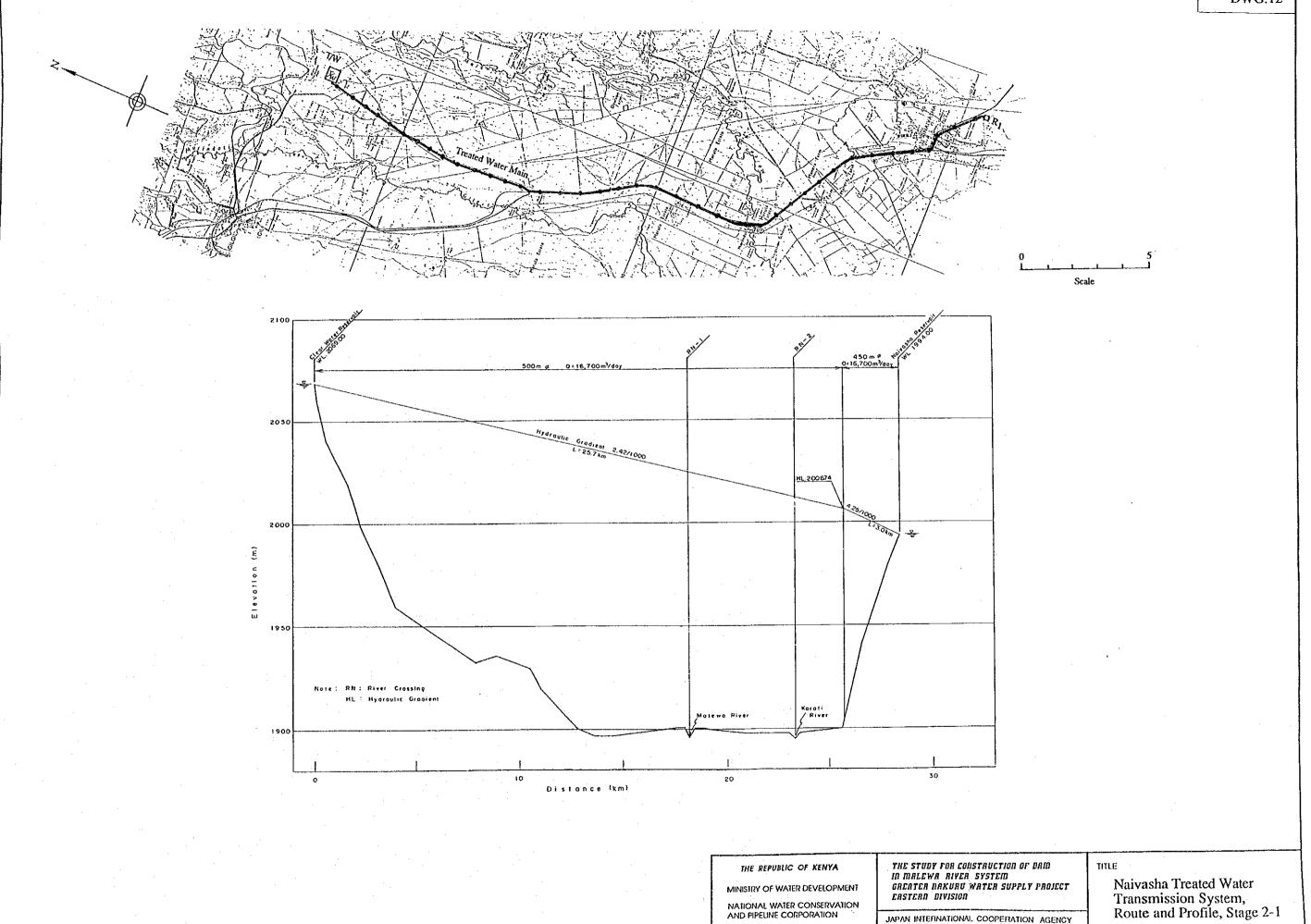
Turasha Intake,

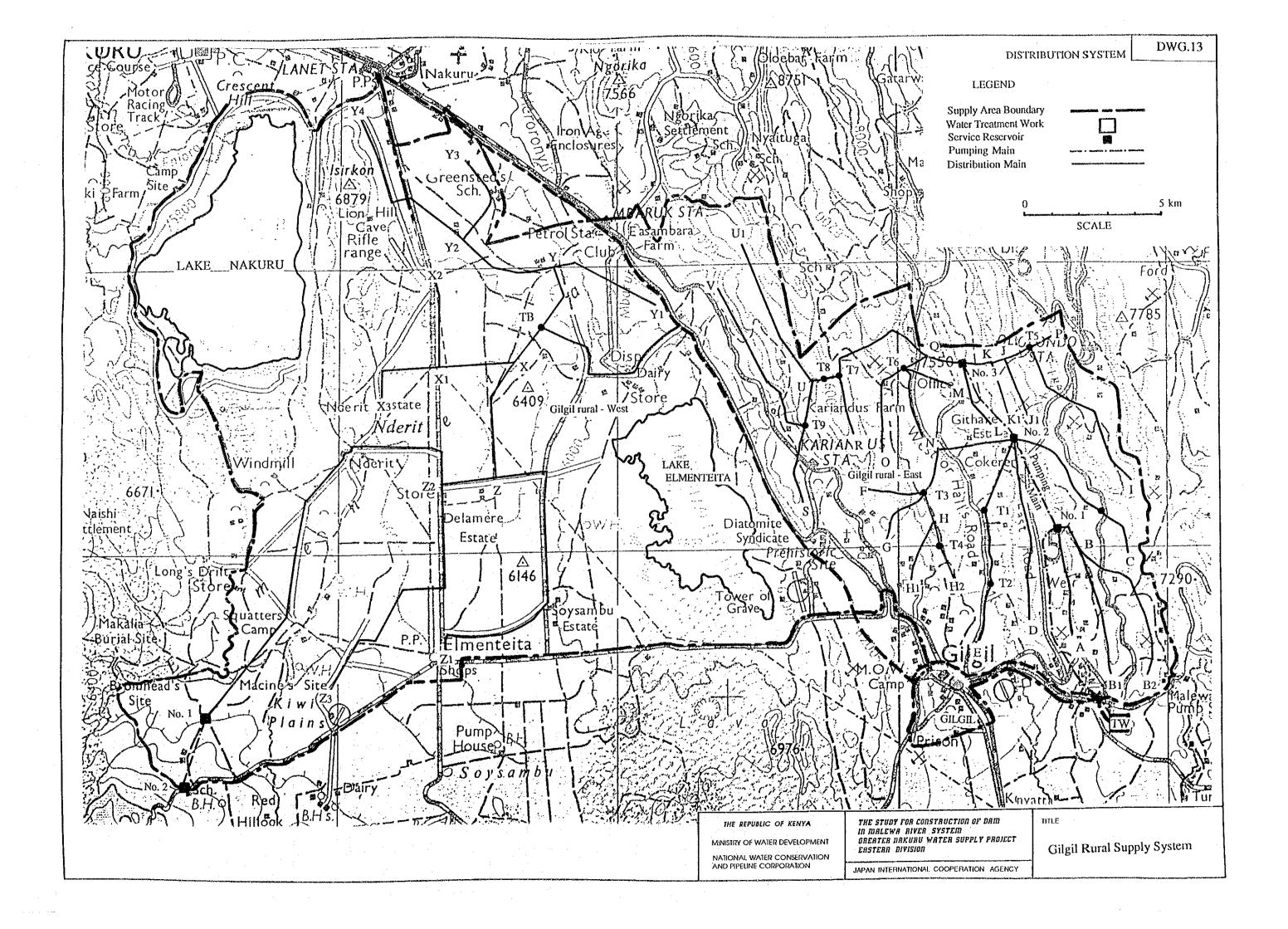
Plan and Section

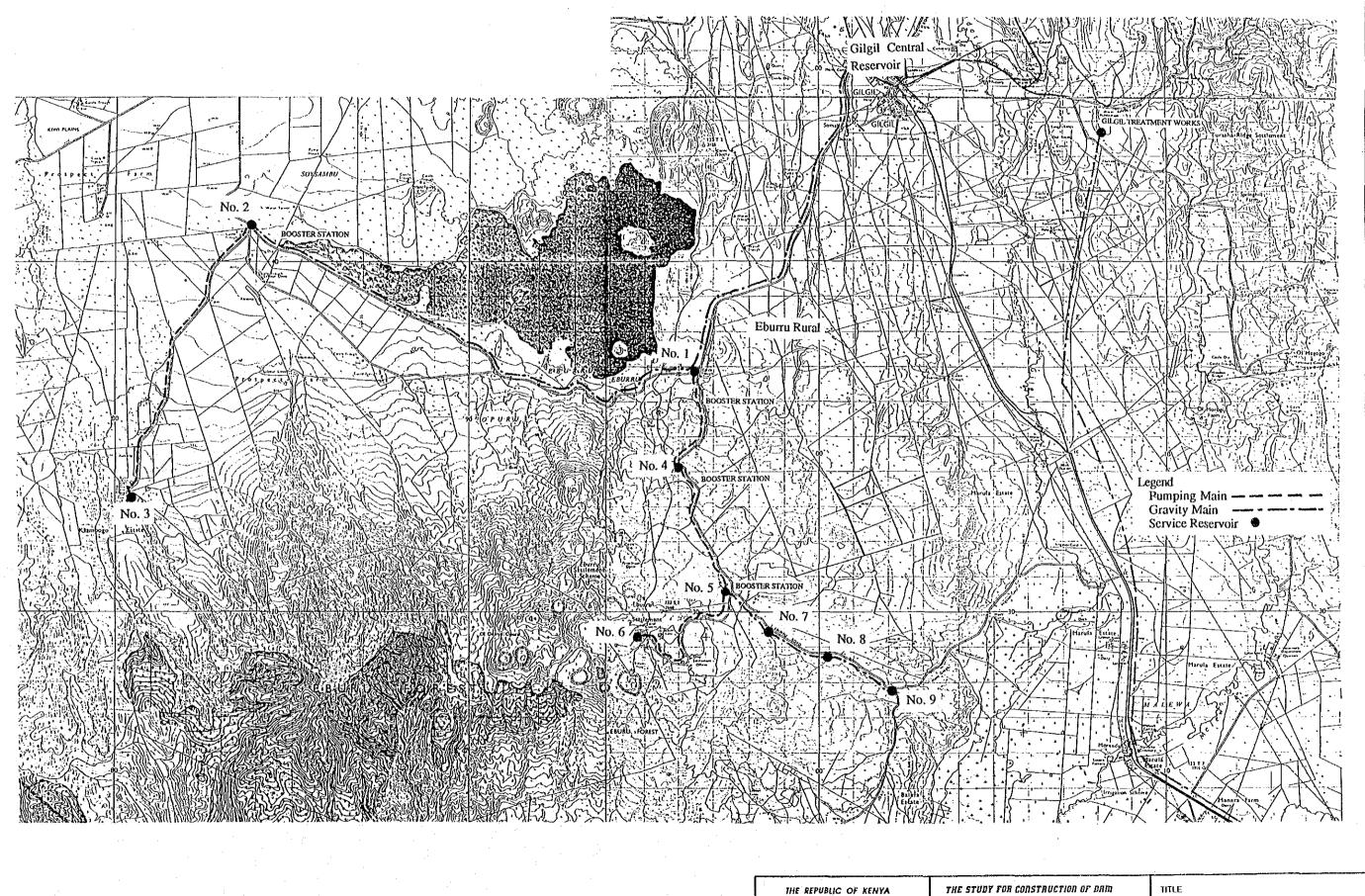












MINISTRY OF WATER DEVELOPMENT

NATIONAL WATER CONSERVATION AND PIPELINE CORPORATION

IN MALEWA RIVER SYSTEM GREATER NAKURU WRTER SUPPLY PROJECT ERSTERN DIVISION

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Eburru Rural Supply System

