

Appendix A. (continued).

III.

#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
11	Silver	7440224	4.1 d		2.3			
12	Thallium	7440280					1.7a	6.3 a
13	Zinc	7440666	120 d, m	110 d, m	95	86	9100	69000
14	Cyanide	57125	22n	5.2n	1	1	700 a	200,000 ah
15	Asbestos	1332214					7,000,000 fibers/L	i
16	2,3,7,8-TCDD (Dioxin)	1746016					0.000000013 b	0.000000014 b
17	Acrolein	107028					320	780
18	Acrylonitrile	107131					0.059 a, b	0.66 a, b
19	Benzene	71432					1.2 a, b	71 a, b
20	Bromoform	75252					4.3 a, b	360 a, b
21	Carbon Tetrachloride	56235					0.25 a,b	4.4 a, b

Numerical Criteria for Priority Toxic Pollutants:

DRAFT

Appendix A. (continued).

III. Numerical Criteria for Priority Toxic Pollutants:

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
22	Chlorobenzene	108907					680 a	21,000 a, h
23	Chlorodibromo- methane	124481					0.41 a, b	34 a, b
24	Chloroethane	75003						
25	2-Chloroethylvinyl- Ether	110758						
26	Chloroform	67663					5.7 a, b	470 a, b
27	Dichlorobromo- methane	75274					0.56 a, b	46 a, b
28	1,1-Dichloroethane	75343						
29	1,2Dichloroethane	107062					0.38 a, b	99 a, b

Appendix A. (continued).

III. Numerical Criteria for Priority Toxic Pollutants:

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
30	1,1-Dichloroethylene	75354					0.057 a, b	3.2 a, b
31	1,2-Dichloropropane	78875					0.52 a	39 a
32	1,3-Dichloropropene	542756					10 a	1700 a
33	Ethylbenzene	100414					3,100 a	29,000 a
34	Methyl Bromide	74839					48 a	4,000 a
35	Methyl Chloride	74873					j	j
36	Methylene Chloride	75092					4.7 a, b	1,600 a, b
37	1,1,2,2-Tetra-chloroethane	79345					0.17 a, b	11 a, b

Appendix A. (continued).

III. Numerical Criteria for Priority Toxic Pollutants:

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
38	Tetrachloroethylene	127184					0.8 b	8.85 b
39	Toluene	108883					6,800 a	200,000 a
40	1,2-Trans-Dichloro- ethylene	156605					700 a	140,000 a
41	1,1,1- Trichloroethane	71556					j	j
42	1,1,2- Trichloroethane	79005					0.60 a, b	42 a, b
43	Trichloroethylene	79016					2.7 b	81b

Appendix A. (continued).  
 III. Numerical Criteria for Priority Toxic Pollutants:

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
44	Vinyl Chloride	75014					2 b	525 b
45	2-Chlorophenol	95578					120 a	400 a
46	2,4-Dichlorophenol	120832					93 a	790 a
47	2,4-Dimethylphenol	105679					540 a	2300 a
48	2-Methyl-4,6-Dinitro-phenol	534521					13.4	765
49	2,4-Dinitrophenol	51285					70 a	14000 a
50	2-Nitrophenol	88755						
51	4-Nitrophenol	100027						

Appendix A. (continued).

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
52	3-Methy1-4-Chloro- phenol	59507					19 e, m	15 e, m
53	Pentachlorophenol	87865					13	7.9
54	Phenol	108952					0.28 a, b	8.2 a, b, h
55	2,4,6-Trichloro-phenol	88062					21,000 a	4,600,000 a, h
56	Acenaphtene	83329					*2.1 a, b	6.5 a, b
57	Acenaphthylene	208968					1,200 a	2,700 a
58	Anthracene	120127					9,600 a	110,000 a
59	Benzidine	92875					0.00012 a, b	0.00054 a, b
60	Benzo(a)Anthracene	56553					0.0044 a, b	0.049 a, b
61	Benzo(a)Pyrene	50328					0.0044 a, b	0.049 a, b

III. Numerical Criteria for Priority Toxic Pollutants:

Appendix A. (continued).  
 III. Numerical Criteria for Priority Toxic Pollutants:

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
62	Benzo(b)Fluoranthene	205992					0.0044 a, b	0.049 a, b
63	Benzo(ghi)Perylene	191242						
64	Benzo(k)Fluoranthene	207089					0.0044 a, b	0.049 a, b
65	Bis(2-Chloroethoxy)-Methane	111911					0.031 a, b	1.4 a, b
66	Bis(2-Chloroethyl)-Ether	111444						
67	Bis(2-Chloroisopropyl)-Ether	108601					1,400 a	170,000 a
68	Bis(2-Ethylhexyl)-Phthalate	117817					1.8 a, b	5.9 a, b



Appendix A. (continued).  
 III. Numerical Criteria for Priority Toxic Pollutants:

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
69	4-Bromophenyl Phenyl Ether	101553						
70	Butylbenzyl Phthalate	85687					3,000 a	5,200 a
71	2-Chloronaphthalene	91587					1,700 a	4,300 a
72	4-Chlorophenyl -Phenyl Ether	7005723						
73	Chrysene	218019					0.0044 a, b	0.049 a, b
74	Dibenzo (a,h) Anthracene	53703					0.0044 a, b	0.049 a, b
75	1,2-Dichlorobenzene	95501					2,700 a	17,000 a
76	1,3-Dichlorobenzene	541731					400	2600

Appendix A. (continued).  
 III. Numerical Criteria for Priority Toxic Pollutants:

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
77	1,4-Dichlorobenzene	106467					400	2600
78	3,3-Dichlorobenzidine	91941					0.04 a, b	0.077 a, b
79	Diethyl Phthalate	84662					23,000 a	120,000 a
80	Dimethyl Phthalate	131113					313000	2900000
81	Di-n-Butyl Phthalate	84742					2,700 a	12,000 a
82	2,4-Dinitrotoluene	121142					0.11 b	9.1 b
83	2,6-Dinitrotoluene	606202						
84	Di-n-Octyl Phthalate	117840						
85	1,2-Diphenylhydrazine	122667					0.040 a, b	0.54 a, b
86	Fluoranthene	206440					300 a	370 a

Appendix A. (continued).

III. Numerical Criteria for Priority Toxic Pollutants:

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
87	Fluorene	86737					1,300 a	14,000 a
88	Hexachlorobenzene	118741					0.00075 a, b	0.00077 a, b
89	Hexachlorobutadiene	87683					0.44 a, b	50 a, b
90	Hexachlorocyclopentadiene	77474					240 a	17,000 a,h
91	Hexachloroethane	67721					1.9 a, b	8.9 a, b
92	Indeno(1,2,3-cd)-Pyrene	193395					0.0044 a, b	0.049 a, b
93	Isophorone	78591					36 b	2,600 b
94	Napthalene	91203						
95	Nitrobenzene	98953					17a	1,900 a,h

Appendix A. (continued).  
 III. Numerical Criteria for Priority Toxic Pollutants:

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
96	N-Nitrosodimethylamine	62759					0.00069 a, b	8.1 a, b
97	N-NitrosodiPropylamine	621647					0.005 a, b	1.4 a, b
98	N-Nitrosodiphenyl-amine	86306					5.0 a, b	16 a, b
99	Phenanthrene	85018					960 a	11,000 a -
100	Pyrene	129000						
101	1,2,4-Trichlorobenzene	120821					260	940
102	Aldrin	309002	3 f		1.3 f		0.00013 a, b	0.00014 a,b
103	alpha-BHC -	319846					0.0039 a, b	0.013 a, b
104	beta-BHC	319857					0.014 a, b	0.046 a, b
105	gamma-BHC	58899	0.95 m		0.16 f		0.019 b	0.063 b
106	delta-BHC	319868						
107	Chlordane	57749	2.4 f	0.0043f	0.09 f	0.004 f	0.0021 a, b	0.0022 a, b
108	4-4-DDT	50293	1.1 f	0.001 f	0.13 f	0.001 f	0.00059 a, b	0.00059 a, b

Appendix A. (continued).

III. Numerical Criteria for Priority Toxic Pollutants:

A			B		C		D	
#	COMPOUND	CAS Number	FRESHWATER		SALTWATER		HUMAN HEALTH For Consumption of:	
			CMCd (ug/1) B1	CCCd (ug/1) B2	CMCd (ug/1) C1	CCCd (ug/1) C2	Water & Organisms (ug/1) D1	Organism Only (ug/1) D2
109	4,4-DDE	72559					0.00059 a, b	0.00059 a, b
110	4,4-DDD	72548					0.00083 a, b	0.00084 a, b
111	Dieldrin	60571	0.24 m	0.056 m	0.71 f	0.0019 f	0.00014 a,b	0.00014 a,b
112	alpha-Endosulfan	959988	0.22 f	0.056 f	0.034 f	0.0087 f	110 a	240 a
113	beta-Endosulfan	33213659	0.22f	0.056 f	0.034 f	0.0087 f	110 a	240 a
114	Endosulfan Sulfate	1031078					110 a	240 a
115	Endrin	72208	0.086 m	0.036 m	0.037 f	0.0023 f	0.76 a	0.81 a, h
116	Endrin Aldehyde	7421934					0.76 a	0.81 a, h
117	Heptachlor	76448	0.52 f	0.0038 f	0.053 f	0.0036 f	0.00021 a,b	0.00021 a, b
118	Heptachlor Epoxide	1024573	0.52 f	0.0038 f	0.053 f	0.0036 f	0.00010 a,b	0.00011 a,b
119	PCBs			0.014 f, k		0.03 f, k	0.00017l	0.00017 l
126	Toxaphene	8001352	0.73	0.0002	0.21	0.0002	0.00073 a,b	0.00075 a, b
Total No. of Criteria (h) =			24	28	23	27	99	97

Appendix A. (continued).  
III. Numerical Criteria for Priority Toxic Pollutants:

FOOTNOTES:

- a. These criteria have been revised to reflect the U.S. E.P.A. q<sub>1</sub>\* or RID, as contained in the Integrated Risk Information System ("IRIS") as of October 1, 1996. The fish tissue bioconcentration factor ("BCF") from the 1980 documents was retained in each case.
- b. These criteria are based upon carcinogenicity of 10<sup>-6</sup> risk.
- c. The Criteria Maximum Concentration ("CMC") is an acute concentration. It is the one (1) hour average concentration in ambient waters that should not be exceeded more than once every three (3) years on average. Criteria Continuous Concentration ("CCC") is a chronic concentration. It is the four (4) day average concentration of a pollutant in ambient water that should not be exceeded more than once every three (3) years on average. ug/l equals micrograms per liter.
- d. These freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/l) in the water body. Values displayed above in the matrix correspond to a total hardness of 100 mg/l. The equations for calculating metals criteria are provided below:

Appendix A. (continued).  
 III. Numerical Criteria for Priority Toxic Pollutants:

FOOTNOTES (continued):

$$\text{CMC} = \text{WER} \times \text{CMC} \times (\exp\{m_A[\ln(\text{hardness})] + b_A\})$$

$$\text{CCC} = \text{WER} \times \text{CCC} \times (\exp\{m_C[\ln(\text{hardness})] + b_C\})$$

Where WER =Water Effects Ratio

Final CMC and CCC values should be rounded to two (2) significant figures.

Metal	$m_A$	$b_A$	$m_C$	$b_C$
Cadmium	1.128	-3.6867	0.7852	-2.715
Copper	0.9422	-1.7	0.8545	-1.702
Chromium (III)	0.819	3.688	0.819	1.561
Lead	1.273	-1.46	1.273	-4.705
Nickel	0.846	2.255	0.846	0.0584
Silver	1.72	-6.52	---	---
Zinc	0.8473	0.884	0.8473	0.884

NOTE: The term "exp" represents the base exponential function.

For waters with a hardness of 400 mg/l or less as calcium carbonate, the actual ambient hardness of the surface water shall be used in those equations. For waters with a hardness of over 400 mg/l as calcium carbonate, a hardness of 400 mg/l as calcium carbonate shall be used with a default Water-Effect Ratio ("WER") of one (1), or the actual hardness of the ambient surface water shall be used with a WER.

Appendix A. (continued).  
III. Numerical Criteria for Priority Toxic Pollutants:

FOOTNOTES (continued):

- e. These freshwater aquatic life criteria for pentachlorophenol are expressed as a function of pH. Values displayed above in the matrix correspond to a pH of 7.8. Values are calculated as follows:

$$\begin{aligned}\text{CMC} &= \exp(1.005(\text{pH}) - 4.869) \\ \text{CCC} &= \exp(1.005(\text{pH}) - 5.134)\end{aligned}$$

- f. These aquatic life criteria for these compounds were issued by the U.S. E.P.A. in 1980 utilizing the 1980 Guidelines for criteria development. The acute values shown are final acute values ("FAV"), which by the 1980 Guidelines are instantaneous values as contrasted with a CMC which is a short-term average.
- g. These totals simply sum the criteria in each column. For aquatic life, there are thirty (30) priority toxic pollutants with some type of freshwater or saltwater, acute or chronic criteria. For human health, there are one hundred (100) priority toxic pollutants with either "water + organism" or "organism only" criteria. Note that these totals count chromium as one pollutant even though U.S. E.P.A. has developed criteria based upon two (2) valence states. In the matrix, the Agency has assigned numbers 5a and 5b to the criteria for chromium to reflect the fact that this list of one hundred twenty-six (126) priority pollutants includes only a single listing for chromium.
- h. No criteria for protection of human health from consumption of aquatic organisms (excluding water) was presented in the 1980 criteria document, or in the 1986 Quality Criteria for Water. Nevertheless, sufficient information was presented in the 1980 document to allow a calculation of a criterion, even though the results of such a calculation were not shown in the document.
- i. This criterion for asbestos is the MCL (40 CFR § 141.62).
- j. The Agency is not adopting human health criteria for these contaminants. However, permit authorities should address these contaminants in NPDES permit actions using Guam's existing narrative criteria for toxics.



Appendix A. (continued).

III. Numerical Criteria for Priority Toxic Pollutants:

FOOTNOTES (continued):

- k. PCBs are a class of chemicals which include aroclors 1242, 1254, 1221, 1232, 1248, 1260 and 1016, CAS numbers 53469219, 11097691, 11104282, 11141165, 12672296, 11096825 and 12674112, respectively. The aquatic life criteria apply to this set of PCBs.
- l. This criterion applies to total PCBs or congener or isomer analyses.
- m. This criterion has been recalculated pursuant to the 1995 Updates: Water Quality Criteria Documents for the Protection of Aquatic Life in Ambient Water, Office of Water, EPA-820-B-96-001, September, 1996. See also Great Lakes Water Quality Initiative Criteria Documents for the Protection of Aquatic Life in Ambient Water, Office of Water, EPA-80-B-95-004, March, 1995.
- n. This criterion is expressed as pg free cyanide (as CN) /l.

General Notes:

- 1. This chart lists all of EPA's priority toxic pollutants, whether or not criteria guidance are available. Blank spaces indicate the absence of criteria guidance. Because of variations in chemical nomenclature systems, this listing of toxic pollutants does not duplicate the listing in Appendix A of 40 CFR Part 423. The Chemical Abstracts Service ("CAS") registry numbers are added to provide a unique identification for each chemical.
- 2. The following chemicals have organoleptic-based criteria recommendations that are not included on this matrix: zinc, 3-methyl-4-chlorophenol.

TABLE IV.  
Additional Toxic Pollutants.

Substance*	Maximum Numerical Limits		Application Factors
	Marine Water	Fresh Water	
Aluminum	0.20 mg/1	1.0 mg/1	0.010
Ammonia	0.02 mg/1		0.050
Barium	0.50 mg/1		0.050
Boron	5.00 mg/1		0.100
Bromine (free as Bromate)	0.10 mg/1		
	100.0 mg/1		
Chlorine 1 (Total Residual)	0.0075 mg/1	0.011 mg/1	0.100
Fluoride	1.50 mg/1	0.80 mg/1	0.100
Iron	0.05 mg/1	3.00 mg/1	
Manganese	0.02 mg/1		0.200
Molybdenum			0.000
Sulfide	0.005 mg/1		0.1 (Applicable to 20-day LC data)
Tributyltin (TBT)	Chronic- 0.010 ug/1 Acute - 0.356 ug/1	Chronic- 0.64 ug /1 Acute - 0.442 ug/ 1	

Substance*	Maximum Numerical Limits		Application Factors
	Marine Water	Fresh Water	
Uranium <sub>2</sub>	0.000	0.01	
Vanadium		0.05	

\*Total amounts in indicated chemical state of form.

- (1) Greater concentrations of Chlorine may be used to treat a source of drinking water in order to meet the requirements of Subsection II.B.1 of these standards.
- (2) Naturally occurring Uranium has been reported in concentrations of 0.003mg/l, 0.00004 mg/l (river water).

Note: Whenever natural concentrations of any toxic substance or element occur and exceed the limits established in these standards, this greater concentration shall constitute the limit; provided, that this natural concentration was not directly affected by non-induced causes.

## **Appendix B. Wetlands.**

### **1. Official Wetland Map.**

The National Wetlands Inventory ("NWI") map published by the United States Fish & Wildlife Service ("FWS"), is the official, interim for Guam pursuant to Executive Order Number 90-13, entitled, "Protection of Wetlands," dated June 12, 1990. See Appendix "D."

### **2. Wetland Classification.**

The Classification of Wetlands and Deepwater Habitats was developed by Cowardin et. al. in 1979 for the FWS. This system provides the basis for wetland related activities with the FWS. The Cowardin system is hierarchical and thus can provide several levels of detail in classifying wetlands. The "System" and "Subsystem" levels of detail appear to be the most promising for water quality standards. Guam may choose to evaluate wetland function and values for all the wetlands within the Island of Guam based upon wetland type (using Cowardin (1979); see Figure 1). It may also evaluate wetlands on a case-by-case basis as individual permit decisions arise to ensure that designated uses are being protected and have reflected existing uses. This interim map is used by Guam for classification, inventory and mapping wetlands, until such time as a new system is developed and accepted for use.

### **3. Criteria for Wetland Identification.**

The latest version of the Corps of Engineers Wetlands Delineation Manual, adopted by the United States Army Corps of Engineers is adopted by reference by these standards. This manual describes technical criteria, field indicators and other sources of information, and methods for identification and delineation of jurisdictional wetlands. This manual shall serve as the technical basis for identifying and delineating jurisdictional wetlands in Guam.

4. Wetland Evaluation.

Wetland evaluations should include a plant and wildlife inventory and an evaluation of the wetland functions. High quality wetlands should maintain water quality and protect against erosion, and include, but are not limited to, those which provide habitat for threatened or endangered species and/or wetlands which are locally or regionally scarce or threatened.

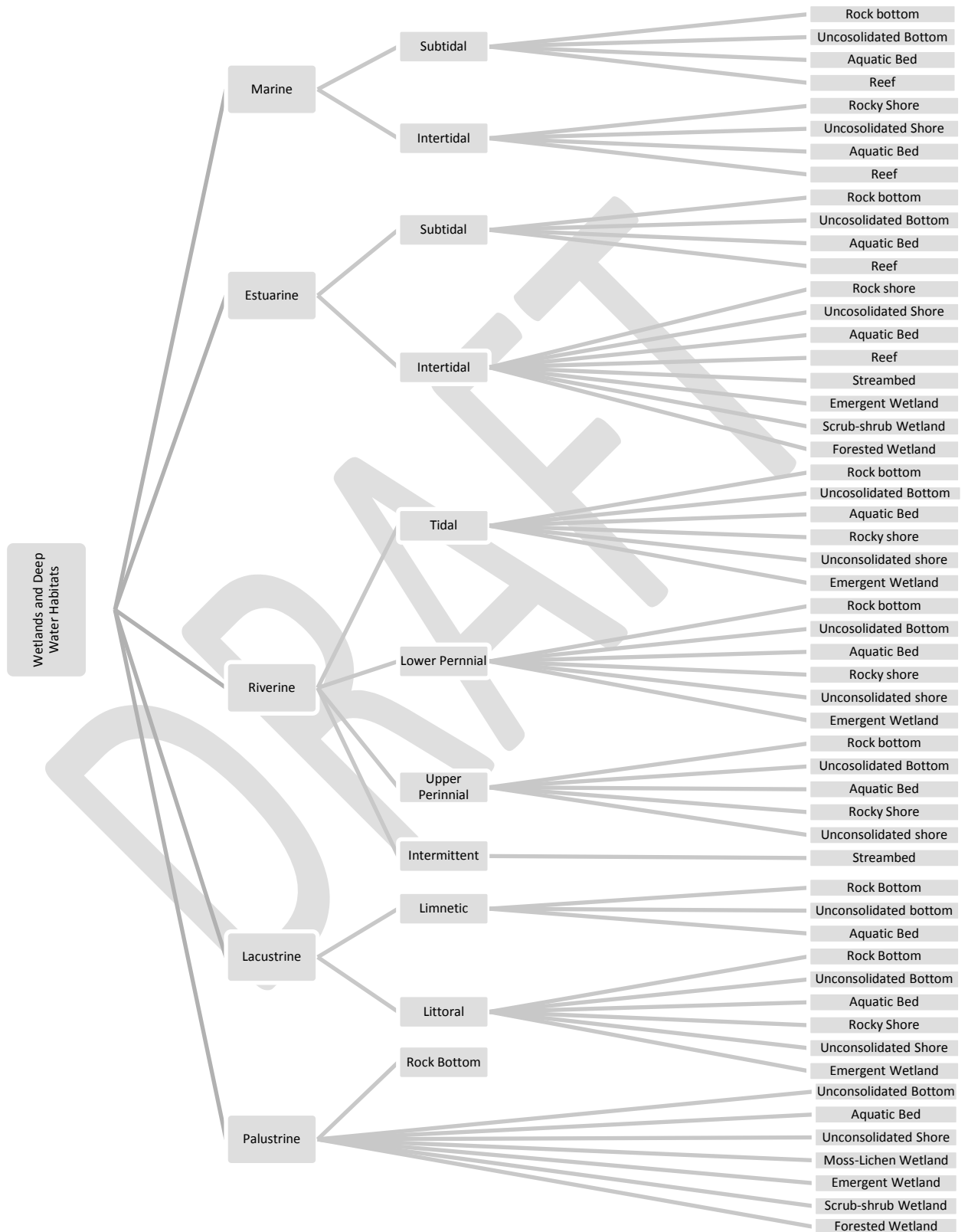
5. Mitigation.

All wetlands in Guam are classified as Guam Resource Waters under this regulation and are protected from degradation. However, in certain instances, limited degradation may be permitted; provided, reasonable and/or practical alternatives are not available, and the applicants have implemented best management practices, worked to avoid impacts due to hydromodification (including reducing the scale of a proposed project), minimized the impacts and agreed to mitigate for the destruction of wetland habitat.

Acceptable mitigation includes construction of a wetland designed to replace the wetland functions destroyed, altered or impaired, and restoration or enhancement of an existing degraded wetland. Protection of an existing functional wetland is not acceptable mitigation for destruction of a wetland, however, as part of a mitigation plan, certification conditions may require protection of on-site wetlands through establishment of deed restrictions or easements. Mitigation conditions may also require long term biological monitoring. The feasibility and general acceptability of a given investigation scheme cannot be used to justify permitted alterations.

Figure 1.

Classification hierarchy of wetlands and deepwater habitats, showing systems, subsystems and classes. The Palustrine System does not include deepwater habitats (from Cowardin et al., 1979).



## **Appendix C. Constructed Wetlands for Water Quality Improvement.**

This guidance encourages the expansion and use of Guam's Wetland Resources through the creation and restoration and to allow for the use of natural wetlands for wastewater treatment if specific requirements are met.

If the wetland is created as part of the treatment process, the minimum requirements on the degree of pretreatment shall include secondary treatment, and applicable water quality standards must be met for water bodies that receive the effluent from the wetland treatment system. If the wetland currently exists, the following requirements shall be applied:

1. minimum of secondary treatment prior to discharge to the wetland;
2. advanced treatment prior to discharge to the wetland, if necessary to meet Guam Water Quality Standards applicable to the wetland;
3. discharge to the wetland free of toxic contaminants, e.g. chlorine, at levels that would impair beneficial uses;
4. monitoring in the wetland to detect accumulation of toxic contaminants and changes to the plant/animal communities;
5. Section 402 NPDES permit;
6. Section 404 permit, if alterations of the wetland are required as part of construction; and
7. review on a case-by-case basis. The Agency may utilize any scientific and regulatory guidance documents to evaluate wetland treatment system designs, objectives and operational considerations as may be appropriate, on a case-by-case basis.

**Appendix D. Executive Order Number 90-13.**





**TERRITORY OF GUAM**

OFFICE OF THE GOVERNOR

AGAÑA, GUAM 96910

U.S.A.

EXECUTIVE ORDER NO. 90-13

**PROTECTION OF WETLANDS**

WHEREAS, Executive Order 78-21 directed the Territorial Land Use Commission to officially designate wetland areas on Guam; and

WHEREAS, Government agencies have been utilizing three separate maps to identify wetland areas due to the lack of an officially adopted map; and

WHEREAS, wetlands are areas of particular concern that provide an essential habitat for maintenance of native plant and animal life, prevent soil erosion and stormwave damage, and valuable locations for scientific and educational investigations, and act as floodplains during periods of excessive water flow and a source of fresh water for domestic and agricultural purposes; and

WHEREAS, the rapid pace of development currently experienced on Guam has placed greater pressure on this valuable resource; and

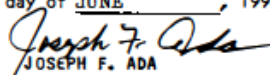
WHEREAS, the management of this resource cannot begin until landowners, developers and the Government of Guam utilize a consistent source of wetland information.

NOW, THEREFORE, I, JOSEPH F. ADA, Governor of the Territory of Guam, pursuant to the authority vested in me by the Organic Act of Guam, do hereby declare that:

1. The official, interim wetland map for Guam shall be the National Wetlands Inventory map published by the United States Fish and Wildlife Service.
2. All Government of Guam agencies shall utilize this map in the review of physical development projects.
3. The appropriate land use agencies including the Guam Environmental Protection Agency, the Department of Agriculture, and the Bureau of Planning shall complete a study of wetlands; prepare public information material; and draft all necessary legislation, rules and regulations, and/or executive orders for processing through the appropriate channels.
4. The Executive Order shall remain in effect until the results of such study recommended legal framework are approved as required by applicable law.
5. Executive Order 78-21 is repealed in its entirety.

SIGNED AND PROMULGATED this 12th day of JUNE, 1990.

COUNTERSIGNED:

  
JOSEPH F. ADA  
Governor of Guam

**Appendix E. Executive Order Number 96-26.**

**Relative to creating the Application Review Committee to replace the Development Review Committee, and to streamline the review process for the Territorial Land Use Commission/Territorial Seashore Protection Commission/Guam Natural Resources Board.**



TERRITORY OF GUAM  
OFFICE OF THE GOVERNOR  
AGAÑA, GUAM 96910  
U. S. A.

**EXECUTIVE ORDER NO. 96-26**

**RELATIVE TO CREATING THE APPLICATION REVIEW COMMITTEE TO REPLACE THE DEVELOPMENT REVIEW COMMITTEE, AND TO STREAMLINE THE REVIEW PROCESS FOR THE TERRITORIAL LAND USE COMMISSION/TERRITORIAL SEASHORE PROTECTION COMMISSION/GUAM NATURAL RESOURCES BOARD.**

WHEREAS, Title 21, Guam Code Annotated created the Territorial Land Use Commission/Territorial Seashore Protection Commission/Guam Natural Resources Board (hereinafter collectively and individually referred to as the "Commission") and invested in the Commission the authority to review all matters pertaining to the zoning, subdivision, granting of conditional uses and variances, and other land and water related uses of public and private land and development within the Territory of Guam; and

WHEREAS, in general, matters coming before the Commission represent exceptions or departures from the Master Plan or existing land use laws of Guam and thus comprise requests for the Commission, acting on behalf of the people of Guam, to grant such exceptions; and

WHEREAS, Executive Orders Nos. 90-09 and 92-06 established and revised the Development Review Committee (DRC) in order to review the impact of proposed developments in the Territory of Guam, Executive Order No. 90-15 established interim guidelines for the DRC, and Executive Order No. 90-10 established requirements for Environmental Impact Assessments for all Commission actions; and

WHEREAS, there is a need for a more efficient and streamlined review process, which entails replacing the existing Development Review Committee (DRC) with a new Application Review Committee ("Committee" or "ARC"), and charging the ARC with the responsibility of evaluating applications for land use matters, and reporting its findings and recommendations to the Commission; and

WHEREAS, the ARC is formulated for the purpose of providing the Commission with technical and professional review, analysis, and advice through individual agency positions concerning various development activities on Guam, so that the Commission can ensure that proposed developments achieve both maximum utility and livability, through provisions for adequate utilities and facilities such as power, water, drainage, schools, parks, traffic circulation, and open spaces for light and air; and

WHEREAS, commercial and residential development in Guam continues at an accelerated rate, and many aspects of these developmental activities create a significant impact upon the environment of Guam; and

WHEREAS, the Guam Environmental Protection Agency (GEPA), pursuant to Chapters 45 through 52, Title 10, Guam Code Annotated, is responsible for providing a



unified, integrated, and comprehensive territory-wide program of environmental protection and procedures to fulfill that responsibility; and

**WHEREAS**, conducting environmental review and impact assessments is a vital and integral part of the development planning process and is therefore of substantial value and utility to developers and landowners, as well as being in the public interest.

**NOW, THEREFORE, I, CARL T. C. GUTIERREZ**, Governor of Guam, by virtue of the authority vested in me by the Organic Act of Guam, as amended, and the laws of Guam, do hereby order that, notwithstanding any other executive order:

- (1) For the purposes of implementing this Executive Order and supplementing definitions not contained in Chapters 61 through 63 of Title 21, Guam Code Annotated, the following definitions shall apply:
  - (a) **"Accessory use"** means a use of land or a building or a portion thereof, when such use is customary and incidental to the actual principal use of the land or building and such accessory use is located on the same parcel of property as the principal use.
  - (b) **"Applicant"** means the person, government, or other entity which submits any application for consideration before the Commission.
  - (c) **"Application"** means the complete application form and all supporting documentation required for a project.
  - (d) **"Barracks"** means a building containing One (1) or more rooms intended or designed to be used or rented for living and sleeping purposes, typically but not exclusively housing provided by an employer for employees. A barracks shall not be construed to mean a hotel.
  - (e) **"Bed and Breakfast Inn"** means a house, or portion thereof, where short-term lodging rooms and meals are provided. The operator of the inn shall live on the premises or in adjacent premises.
  - (f) **"Club"** means an organization which operates an establishment for objectives of an athletic, patriotic, political or social nature and not for pecuniary gain, having a bona fide membership list, the majority of members of which pay dues at least once in every year.
  - (g) **"Clubhouse"** means a building used to house a club or social organization, not conducted for private profit and not an adjunct to, operated by, or in connection with a public tavern, bar, cafe, or other public place.
  - (h) **"Day"** means a calendar day unless otherwise specified.
  - (i) **"Lodging House" or "Rooming House"** means any building, or portion thereof, containing not more than five guest rooms which are used by not more than five guests where rent is paid

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comply with all of the requirements of the Building Code for dwellings.

- (j) **"Planned Unit Development"** means land under unified control to be planned and developed as a whole in a single development operation or a programmed series of development operations or phases. A planned unit development generally as a range of uses including residential, commercial, office, and recreational that are designed to be in a harmonious relationship with each other. Such a development is built according to specific plans that include not only streets, utilities, lots, and building locations, but also site plans for all buildings that are intended to be located, constructed, used and related to each other and plans for other uses and improvements on the land as related to the buildings.
- (k) **"Project"** means any type of proposal that comes before the Commission for approval.
- (2) There is created an Application Review Committee ("Committee" or "ARC") which is comprised of the following permanent voting members:
  - (a) Department of Land Management, Planning Division (DLM);
  - (b) Guam Environmental Protection Agency (GEPA);
  - (c) Department of Agriculture (DAGR);
  - (d) Guam Waterworks Authority (GWA);
  - (e) Guam Power Authority (GPA);
  - (f) Department of Parks and Recreation (DPR);
  - (g) Department of Public Works (DPW); and
  - (h) Bureau of Planning (BOP).

The heads of such agencies shall assign senior members of their respective departments to attend the ARC meetings.

- (3) Interim ARC Guidelines are hereby established, pending promulgation as rules through the Administrative Adjudication Law. The Interim Guidelines are attached as Appendix A.
- (4) This Executive Order shall govern all land and water uses that come before the ARC and the Commission. All applications and other matters that come before the ARC or Commission shall be in compliance with this Executive Order and the attached and incorporated Interim Application Review Committee (ARC) Guidelines. The requirement to conform to the Interim Guidelines shall cease upon the promulgation of rules pursuant to the

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- (5) All applications for Commission action shall first be submitted to the voting member agencies of the ARC for their technical review and analysis. The period of this review and analysis shall not exceed Sixty (60) days from the first ARC meeting at which the application appears on the ARC's agenda; provided, however, that this period may be reasonably extended by the Commission upon written request of an ARC member or the applicant. No items shall be placed on the Commission agenda unless the items are first approved by the ARC. All Commission agenda items must be approved by the ARC not less than Two (2) weeks prior to the scheduled Commission meeting. Except for applications for zone changes, the applicant shall apply for and receive a building or grading permit for the approved project within One (1) year of the date of recordation of the Notice of Action, otherwise, the approval of the project as granted by the Commission shall expire; provided, however, that the Commission may grant Two (2) one-year extensions of the above approval period.
- (6) All applications for conditional use, zone change, variance, subdivision approval, golf courses, any proposed developmental action in wetlands, or for development of aquaculture facilities shall be required to submit an Environmental Impact Assessment (EIA) in the format required by the Guam Environmental Protection Agency (GEPA) Administrator; provided, however, that the proposed action may be determined by the GEPA Administrator to be exempt from the EIA requirement as set forth below:
  - (a) One (1) or Two (2) single family dwelling units on a single lot;
  - (b) a single duplex;
  - (c) sign or setback variances;
  - (d) reduction, relocation or deletion of easements; and
  - (e) horizontal property regimes.

The above listed projects shall not be exempt from the EIA requirement if the project involves construction and is located within an environmentally sensitive area, which includes, but is not limited to, areas that affect seashore, rivers and streams, wetlands, critical fauna and flora habitats, and aquifer recharge areas.

- (7) When there is a change in ownership, management, or directorship of any development project before, during, or after construction on the project, and the project requires an EIA under provisions of this Executive Order, each subsequent owner, manager, or director of the development project shall be subject to all provisions of the EIA in the same manner as the original owner, manager, or director of the development. The owner of the development project shall give written notice to the GEPA and the Territorial Planner of a change in ownership, project manager, or directorship, within Thirty (30) days of the change.



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- (8) The Planning Division of the Department of Land Management shall provide administrative support staff and services for the ARC.
- (9) No act prohibited or restricted by any statute, rule, law, or executive order shall be permitted by reason of compliance with this Executive Order No. 96-26.
- (10) No permit, license, or requirement under any statute, rule, or law, federal or territorial, shall be waived by reason of compliance with this Executive Order No. 96-26.
- (11) This Executive Order No. 96-26 shall operate prospectively only, and applies to all applications submitted to the Department of Land Management after the effective date of this Executive Order No. 96-26. All previously submitted applications shall continue under the procedures in force when the applications were accepted by the Department of Land Management.
- (12) The provisions of this Executive Order No. 96-26 are severable and if any provision or part is held invalid, unconstitutional, or inapplicable to any person or circumstances, such invalidity, unconstitutionality, or inapplicability shall not affect or impair the remaining provisions of this Executive Order. If the use of the Interim Application Review Committee (ARC) Guidelines are invalid or unlawful, the existing Development Review Committee (DRC) Rules and Regulations, promulgated January 1995, as far as practicable, shall govern all matters before the ARC and Commission until the ARC Rules can be promulgated pursuant to the Administrative Adjudication Law.
- (13) Executive Orders Nos. 90-09, 90-10, 90-15, and 92-06 are rescinded.

SIGNED AND PROMULGATED at Agaña, Guam this 28th day of October, 1996.

A handwritten signature in black ink, appearing to read "C. Gutierrez", is written over a horizontal line.

CARL T. C. GUTIERREZ  
Governor of Guam

COUNTERSIGNED:

A handwritten signature in black ink, appearing to read "Madeleine Z. Bordallo", is written over a horizontal line.

MADELEINE Z. BORDALLO  
Lieutenant Governor of Guam

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**APPENDIX A**  
**of Executive Order No. 96-26**

**INTERIM**  
**APPLICATION REVIEW COMMITTEE (ARC)**  
**GUIDELINES**

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**§100. Authority.** These Interim Guidelines are established under the authority of Executive Order 96-26 pending promulgation through the Administrative Adjudication Law, Chapter 9 of Title 5, Guam Code Annotated.

**§200. Official Name.** The official name of the Committee is the "Application Review Committee", referred to as "ARC" or "Committee".

**§300. Purpose.** The Committee is formulated for the purpose of providing the Territorial Land Use Commission/Territorial Seashore Protection Commission/Guam Natural Resources Board (hereinafter referred to as the "Commission") with technical and professional review, analysis, and advice through individual agency positions concerning various development activities in Guam. Within its mandated area of authority, each ARC agency shall:

- (a) Ensure compliance with applicable law, regulatory standards, procedures, policies, and rules within its mandated area of concern;
- (b) Evaluate alternative development strategies with the applicant to provide the best development plan for the developer and the community; and
- (c) Develop and provide official position statements on applications submitted to the Commission.

**§400. Organization.** (a) **Permanent Voting Members.** The permanent voting members of the ARC as defined in this Executive Order are: