（污染影响类）

2025　9

中华人民共和国生态环境部制

1
28
58
70
101
104
105

1

1
2
3
4
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9
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11
12
13
14
15
16
17 2024
18
19
20
21
22
23

1

2

3

4

5

6

7

8

9

10

69.9 /

GB18918-2002 A

56 /

1-2

	m^3/d
	6
	10
	40 20 40
	5
	1
	1.2
	1.2
	2
	2.5
	1
	69.9

6 m^3/d

2024

3

2022 11 4

2022 25

10

/ 20 /

12 /

40 /

2025

97%

“ ”

2

2021 3 1

1-3

1-3

	91530100775519713B003Z TP DB5301/T43-2020 A 0.05mg/L TP	

3 **2022**

2022 1

19

2022 2022 7

1-4

1-4 **2022**

1.

2.

3.

4.

Ä

6.	2019 12 5 m^3/d	
7. 332		
8.		
9.		
10.		
11.		
12.		

2022

4

2022

2022

1-5

1-5

2022

1	2019-2035 2019-2035		
2			
3		347m	

	4			
	5			
	6			
	7		2019 12 5 m^3/d	
	8			
	9			

10

11

2024 7 13

2021 11 25

2021 21 2024 11 12

2023

ZH53011220005

1-6

1.		
2024 2021-2035 4274.70 20.34% 1.85% 5151.56km^2 24.37% 2.45%		
2.		
2025 81.5% 45 80% V 22 100% 99.1% $PM_{2.5}$ 24 / 0		

	90%	15m 1# 1 1	
	3.		
	2025 GDP		
	4.		
	1. 2021-2035 2. 3. “ ” 4.		

		“ ”		
		1. 2025 81.5% COD≤40mg/L 100% 10243t 1009t 2. 2025 99.1% $PM_{2.5}$ 24μg/m^3 2237t 1684t 3.2025 65 50 / 4. VOCs VOCs 5. 2025 90% 6. 2025 95 75	COD7115.4925t/a 300.03t/a 248.2t/a 156.585t/a 15m 1# 1 1	

90
97

7.
2025

90%
96%
85%
2025

		2. 3. 4. “ ” 5. 6.	“ ”	
		1. 2025		

2.

35.48
m^3 GDP
2020 10%

2020 10%

0.55
3.
≤30 /
1.2025

2020 14%

2. GDP
23.6%

3.

17

4.

5. 2025

6.

7. 2025

4A
PUE
1.3

		14.5% 12% 9. 2025 30% 10. 2020 7% 11. 40% 12. GDP 23% 13. “ ” 14. “ ” “ ” “ ” 15. 16. “ ”		
	5.			
		1. 2		

		2.		
		1. 2. 3. 4. 5. 95% 85 100 6.	1. GB3095-2012 2. 3. 4. 100% 5. 6.	
		1. 2.	GB18597-2023	
		≥80%		

2022 9

1-7

NOx 60% 2025 65 50 /		

2024 1 1

134.9

333.1

323.8 9.27

825

246.4

5 6 0.46

117.3

365.3

32.2

254 1775

26

1-8

1-8

			100%	

2023 115

2023 115

1-9

2023 115

2025 70% 95%		

0.3 /	0.05 /	

2023 115

2016 2016 11

1

2017 3 1

2016

1-10

1.

315 30

2008 5 20

2009 7 10

72km^2

2005 8

2005 661

2015 3

2015 28

2009 8

2009 11 7 2009 239

2014 1 3

2014 5

2017 TP

2017 8

2017 10 20

2017 8 2021

7

2018 12 24

102°57′33.91″ 24°57′33.91″ 2018 12

2018-530100-77-01-012984

2019 1 24

10950 m^3/a 30 m^3/d 2021 3 5

102°41′17.92″ 24°57′52.99″

5

m^3/d BOD COD NH_3-N TP

DB5301/T43-2020 A TN

DB5301/T43-2020 B

GB18918-2002

A

12 m^3/d 14.6 m^3/d

10 m^3/d 12.2 m^3/d

15 m^3/d

12 m^3/d

12 m^3/d

5 m^3/d 35 m^3/d

5 m^3/d

BOD COD NH_3-N TP

DB5301/T43-2020 A TN

DB5301/T43-2020 B

GB18918-2002 A

2015 1 1

2016 9 1 2018 12 29

2017 10 1

2021

“ ” 94

“ 10 500 ”

2.

6930.59 45.7 0.66%

2025 11 2026 2

3.

35 m^3/d

Ã

35 m^3/d

1 1#

$10.0\times10^4 m^3/d$ $15.0\times10^4 m^3/d$

1

1 6 2

1 2

2

$5.0\times10^4 m^3/d$

1\

DN300 120m DN50

200m → DN1000 300m

DN1200 400m

2-1

		AAO 2 1# 1 1 6 2 1 2	
		5.0 m^3/d 2 $250m^2$	
		D=16m H=5.5m $200m^2$	
		4 1 Q $80m^3/h$	
		D DN1000 800m	
		→ DN100 550m	
		→ DN250 50m	
		→ DN300 120m	
		DN50 200m	
		→ DN1000 300m	
		DN1200 400m	
		$43000m^2$	
		$100m^2$	
		1 $625.6m^2$ 7 5	

2
3

BOD COD NH3-N TP

DB5301/T43-2020 A TN

DB5301/T43-2020 B

GB18918-2002 A

15m

GB18918-2002

35 m^3/d

BOD COD NH_3-N TP

DB5301/T43-2020 A TN

DB5301/T43-2020 B

GB18918-2002 A

2-2

	2000mm 11200mm 1900mm 2350mm 2800mm 25mm	4	35 m^3/d	67.7 m^3/d	
	8 4 CP3602 5867-5628-5403m^3/h 4 CP3501 4145-3890-3615m^3/h	1	35 m^3/d	67.7 m^3/d	
	2400mm 2000mm	4	35 m^3/d	67.7 m^3/d	
	21.0 3.9m 3.0m	2	35 m^3/d	67.7 m^3/d	
	/	2		28 m^3/d	
AAO	20 m^3/d 2 2 5 m^3/d 10 m^3/d 1 2 5 m^3/d 119.4	6	35 m^3/d	39 m^3/d 1# 15 m^3/d 2# 12 m^3/d 12 m^3/d	1# 2#

	43.8m 6.8m				
	40m 4.5m 0.5m 5.0m	6	35 m^3/d 0.83m /m h 1.24m /m h	39 m^3/d 1.24m /m h	
	99.0m 93.0m 9.9m 5.1m 4.8m	1	30 m^3/d	30 m^3/d	
	L B=21m 4.5m	2	5 m^3/d	5 m^3/d	
	27.0m 16.5m 5.8m 5 4 1 1 4170m^3/h 8.5m	1	35 m^3/d	39 m^3/d 40 m^3/d	
D	69.2m 51.3m 10.4m 3.5m	2	35 m^3/d	39 m^3/d 39 m^3/d	
	19.3m 17.4m 2.0m 4 4 32mm 1400mm 179kW	1	35 m^3/d	39 m^3/d 39 m^3/d	
	16.0m 3.0m 4.4m 1	3	30 m^3/d	30 m^3/d	
	16.0m 3.0m 4.4m 1	1	5 m^3/d	5 m^3/d	
	37.0 17.1m 4 1	1	35 m^3/d	35 m^3/d	
	19.0 24.4m	1	35 m^3/d	35 m^3/d	

+AAO+

→ → → → →

→AAO → →

→ /

→D → →

→ → → →

2-3

		ZGS-1900		3
		ZBJ-500		1
		CP3602		4
		CP3501		4
		ZG-I-2400		1
		ZLS-360		6
		ZHS-11.2		6
		ZSF-360		6
		BK7018		1
		BK6015		4
		D=1.7m		
		D=2.2m =5.2m		2
		D=2.9m =5.2m		2
		D=12m		2
		LP100/100 Q=40m³/h H=2bar P 5.5k		2
		Q=90-150L/h H=20m P=1.1		6
		Q=1200L/h H=20m P=1.5		6
		D=0.8 P=3kW		3
		4m /h		3
		NM031BY01L06B		2
		0.5t/h		2
		2.0m³		3
		200kg/h		1
		200kg/h		1

	20Nm h 7 bar	2
	20Nm h 7 bar	3
	Q=90-150L/h H=20m P=1.1	1
	7.5	2
	φ=1200mm N=4.0	4
	NP3127 Q=120m /h H=8.0m N=5kW	2
	DN1800Q=14000m h	1
	HCRKO/2500-30-7.5	8
	HCRKO/2500-30-11	8
	D≈2500mm N=7.5	10
	D≈2500mm N=5.5k	4
	PP4660	12
	PP4680 25 Q=1832m³/h H=1.5m	6
	NP3301	8
	NP3300	5
	NP3127	6
	Q=60m /h H=15m N=5.9	3
	ZX40	8
	40m	4
		5
	D D	2
	D D	2
	NP3171	1
	NP3202	1
	TAWA-TF16/200	4
	SEW-EURODRIVE	3
	KRT K250-401/406UG 40	2

KRT K150-315/234UG 21	2
Amarex ND100-220/044ULG 3.7	2
XZB1000-25	2
KA10S-GK200	5
KA22S-GL225 Q=231.5m /min	2
TJ-3 31066m /h BXH=2438X2134	12
T35-II-7.1	7
G2-100	5
PDB8.5	
M-OVAS/70-3.0/NC	4
Q=50~100m /h N=5.5	1
NM105BY01L06V NM031BY01L06B Q=0.17~1.09m /h =H=20m N=0.55	5
	2
WNG16	3
Q=25m³/h L=20m N=11	1
LS 550	1

1.3		Q=4800m^3/h H=0.8m P=25kW 380V IP68 F 10m		2	2	
1.4		Q=1390m^3/h H=5.0m N=40kW		1	1	
1.5		3W/m^3		6	6	
1.6		15.0×10^{4}m^3/d		1	1	
1.7		15.0×10^{4}m^3/d		1	1	
2						
2.1		1100m^3/h L×B=21m×4.5m		2	2	
3						
3.1		Q=80m^3/h N=86kW		1	1	
3.2		D=16.0m N=1.5kW		1	1	

1.

2-5

2-5

	219	m^3
	24852.23	t
PAM	58.96	t
PAC	17023.6	t

2-6

	219	5	m^3	
	173965.61	140	t	
PAM	412.72	7	t	
PAC	119165.2	105	t	

2.

1

1%

“ ”

2

COD

(3 PAM

PAM Polyacrylamide

PAM

(4 PAC

PAC PAC

PAC

35

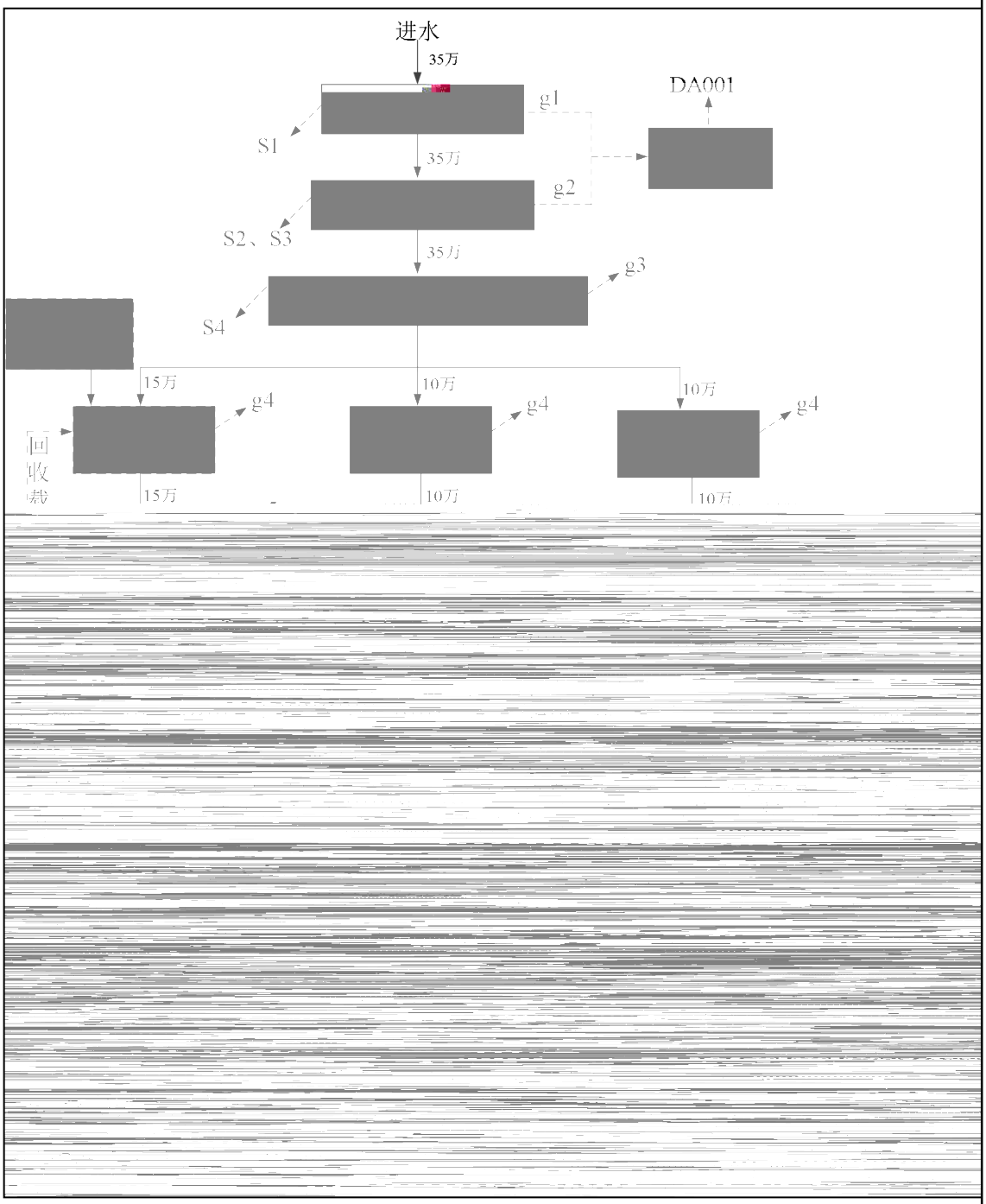
365 24

1

2

3

5 m^3/d


进水
35万
g1
DA001
S1
35万
g2
S2、S3
35万
g3
S4
15万
10万
10万
g4
g4
g4
回收装
15万
10万
10万

2-1

1

944[illegible]h

4[illegible] m^3/d

[illegible] 4 5867-5628-5403m^3/h 4

4145-3890-3615m^3/h 35 m^3/d

S1 g1

AOE

15m DA001

2

2-2

1# 1#

10.0 $10^4m^3/d$ 15.0 $10^4m^3/d$

AAO N g4

5

3 2

SS BOD_5

6 40m 4.5m

15072m^2 5.43h 0.83m^3/m^2h

3.62h 1.24

1

g5

6

“ +D ” 30 m^3/d

TP≤0.5mg/L 30 m^3/d

5 m^3/d

30 m^3/d

35 m^3/d D

D 911.23m^2 13.72m^3/m^2h

15.24m^3/m^2h 17.38m^3/m^2h 19.31m^3/m^2h

315 30

2008 5 20

2009 7 10

72km^2

2005 8

2005 661

2015 3

2015 28

2009 8

2009 11 7 2009 239

2014 1 3

2014 5

2017 TP

2017 8

2017 10 20

10950 m^3/a 2021 3 5

102°41′17.92″ 24°57′52.99″

13			3	218.93
14			1	10m
15			1	6m
16			1	1899m 2.4m

KL

1.

1

2024

2-9

	pH		COD			
			mg/L	mg/L	mg/L	mg/L
01	11.113	17.427	330.752	16.186	7.521	25.285
02	10.94	17.099	338.952	13.276	8.206	23.459
03	12.72	18.971	423.033	18.543	9.259	24.769
04	15.182	21.583	482.564	22.207	10.571	26.556
05	16.247	22.708	470.781	18.793	10.658	24.553
06	16.967	23.471	451.045	14.36	10.204	20.421
07	17.576	24.076	434.412	18.553	8.754	22.267
08	18.181	24.702	522.74	17.015	10.479	20.954
09	17.663	24.344	463.253	16.689	8.473	21.292
10	15.797	22.371	304.456	16.966	5.386	22.011
11	14.118	20.511	306.373	18.238	6.277	24.223
12	12.17	18.596	390.276	18.495	7.799	27.36
	7.02	21.32	409.89	17.44	8.63	23.6

2024

2-10

COD

04	11.611	0.171	0.029	7.161	7.055	15.182
05	12.355	0.146	0.034	6.943	7.038	16.247
06	10.395	0.11	0.03	6.676	7.06	16.967
07	10.479	0.107	0.03	6.761	7.092	17.576
08	10.526	0.096	0.025	6.964	7.089	18.181
09	11.103	0.163	0.026	7.186	7.061	17.663
10	10.587	0.147	0.028	7.207	6.996	15.797
11	10.639	0.151	0.031	7.098	7.008	14.118
12	10.485	0.139	0.032	7.176	7.004	12.17
	10.69	0.13	0.03	7.11	7.04	11.113
	20	1.0	0.05	10	-	-
					-	-

COD NH_3-N TP

DB5301/T43-2020 A TN

DB5301/T43-2020 B

2

10950

m^3/a COD 20mg/l 2372.5t/a 1.0mg/l

118.625t/a TP 0.05mg/l 5.93125t/a TN

10mg/l 1186.25t/a

2024

2-11

		COD	NH_3-N		
30 m^3/d	mg/L	409.89	17.44	8.63	23.6
	t/a	44882.955	1909.68	944.985	2584.2
	mg/L	10.69	0.13	0.03	7.11
	t/a	1170.555	14.235	3.285	778.545

COD 1170.555t/a 14.235t/a

778.545t/a 3.285t/a

2.

2023

1#AOE 15m DA001

2#AOE 15m

DA002

1

DA001 DA002

2024

2-12 2024

				1	2	3		GB14554-93
DA001	2024.02.21		mg/m³	1.05	1.10	1.22	1.12	/
			kg/h	0.0023	0.0022	0.0025	0.0023	4.9(kg/h
			mg/m³	0.06	0.06	0.07	0.06	/
			kg/h	0.00013	0.00012	0.00014	0.00013	0.33(kg/h
				354	354	269	354	2000
	2024.08.14		mg/m³	1.58	1.38	1.48	1.48	/
			kg/h	0.0039	0.0034	0.0042	0.0038	4.9(kg/h
			mg/m³	0.05	0.06	0.06	0.06	/
			kg/h	0.00012	0.00015	0.00017	0.00015	0.33(kg/h

			478	416	416	478	2000
		mg/m³	1.37	1.52	1.62	1.50	/
		kg/h	0.0027	0.0039	0.0032	0.0029	4.9(kg/h
	2024.02.21	mg/m³	0.08	0.07	0.08	0.08	/
		kg/h	0.00016	0.00013	0.00016	0.00015	0.33(kg/h
			478	416	478	478	2000
DA002		mg/m³	1.72	1.67			
	2024.08.14						

					3#	0.04	0.05	0.04	0.05	0.05	
					4#	0.05	0.07	0.07	0.08	0.08	
					1#	<10	<10	<10	<10	<10	20
					2#	<10	<10	<10	<10	<10	
					3#	<10	<10	<10	<10	<10	
					4#	<10	<10	<10	<10	<10	
						1.48	1.47	1.46	1.54	1.54	/
					/%	0.000207	0.000206	0.000204	0.000216	0.000216	1
						1.46	1.45	1.49	1.50	1.50	/
					/%	0.000204	0.000203	0.000209	0.000211	0.000211	1
		2024.04.26			1#	0.007	0.005	0.004	0.005	0.007	0.06
					2#	0.008	0.009	0.008	0.008	0.009	
					3#	0.008	0.009	0.007	0.009	0.009	
					4#	0.010	0.009	0.010	0.008	0.010	
					1#	0.04	0.05	0.04	0.05	0.05	1.5
					2#	0.05	0.04	0.06	0.05	0.06	
					3#	0.09	0.07	0.08	0.07	0.09	
					4#	0.09	0.07	0.09	0.07	0.09	
					1#	<10	<10	<10	<10	<10	20
					2#	<10	<10	<10	<10	<10	
					3#	<10	<10	<10	<10	<10	
					4#	<10	<10	<10	<10	<10	
						1.89	1.63	1.66	1.79	1.89	/
					/%	0.000265	0.000228	0.000232	0.000251	0.000265	1
						1.70	1.62	1.72	1.63	1.72	/
					/%	0.000238	0.000227	0.000241	0.000282	0.000241	1
		2024.07.13			1#	0.001	0.002	0.001	0.002	0.002	0.06
					2#	0.002	0.003	0.004	0.003	0.004	
					3#	0.004	0.005	0.004	0.005	0.005	
					4#	0.005	0.006	0.007	0.007	0.007	

				1#	0.02	0.02	0.03	0.02	0.03	1.5
				2#	0.02	0.03	0.03	0.03	0.03	
				3#	0.04	0.04	0.05	0.05	0.05	
				4#	0.06	0.06	0.07	0.07	0.07	
				1#	<10	<10	<10	<10	<10	20
				2#	<10	<10	<10	<10	<10	
				3#	<10	<10	<10	<10	<10	
				4#	<10	<10	<10	<10	<10	
					3.96	3.02	6.92	3.09	6.92	/
				/%	0.000554	0.000423	0.000969	0.000433	0.000969	1
					1.53	1.49	1.48	1.44	1.53	/
				/%	0.000214	0.000209	0.000207	0.000201	0.000214	1
	2024.10.22			1#	0.007	0.005	0.006	0.006	0.007	0.06
				2#	0.013	0.014	0.015	0.016	0.016	
				3#	0.014	0.015	0.017	0.015	0.017	
				4#	0.014	0.013	0.016	0.013	0.016	
				1#	0.09	0.10	0.12	0.11	0.12	1.5
				2#	0.19	0.20	0.21	0.20	0.21	
				3#	0.18	0.19	0.19	0.18	0.19	
				4#	0.21	0.22	0.23	0.22	0.23	
				1#	<10	<10	<10	<10	<10	20
				2#	<10	<10	<10	<10	<10	
				3#	<10	<10	<10	<10	<10	
				4#	<10	<10	<10	<10	<10	
					4.01	4.11	3.98	3.84	4.11	/
				/%	0.00056	0.00058	0.00056	0.00054	0.00058	1
					2.12	1.97	2.01	1.94	2.12	/
				/%	0.00030	0.00028	0.00028	0.00027	0.00030	1

GB18918-2002

GB18918-2002

3.

2024

2-14 2024

				dBA	dBA
2024.01.18		N1	1m	52	43
		N2	1m	47	41
		N3	1m	48	39
		N4	1m	51	42
2024.04.26		N1	1m	49	40
		N2	1m	51	43
		N3	1m	48	39
		N4	1m	49	41
2024.07.13		N1	1m	50	44
		N2	1m	45	40
		N3	1m	46	41
		N4	1m	52	44
2024.10.22		N1	1m	51	41
		N2	1m	50	42
		N3	1m	50	42
		N4	1m	52	43
				55	45

GB12348-2008 1

4.

2-15

			t/a	
1		/	10.95	
2			210	
3			821	
4			19	
5			18250	
6		HW49900-217-08	0.5	
7		HW08900-047-49	0.15	
8		HW29900-023-29	1	

100%

1

GB3095-2012

GB3095-2012 347m

GB3095-2012 NH_3 H_2S

HJ2.2 2018 D D.1

3-1

SO_2		20	60	μg/m³
	24	50	150	
	1	150	500	
NO_2		40	40	
	24	80	80	
	1	200	200	
PM_{10}		40	70	
	24	50	150	
$PM_{2.5}$		15	35	
	24	35	75	
O_3	8	100	160	
	1	160	200	
CO	24	4	4	mg/m³
	1	10	10	
TSP		80	200	μg/m³
	24	120	300	
	1	20	20	

3-2

		1
	mg/m³	0.2
	mg/m³	0.01

2024 2024

99.7% 221 144 1

2023 32

8

GB3095-2012

TSP NH_3 H_2S

1 G1 · 102°41′22.195″E

24°57′56.074″N

2 2025 9 5 -9 7

3 TSP NH_3 H_2S

4

3-3 / ^{3}

G1

	0.2	0.01

TSP GB3095-2012

NH_3 H_2S HJ2.2 2018

D D.1

500m

GB3095-2012

https://air.cnemc.cn:18007/ 2025 09 05 09 07

3-5

	SO_2	09 05	ug/m^3	10	50	
		09 06		8		
		09 07		6		
	NO_2	09 05	ug/m^3	38	80	
		09 06		22		
		09 07		12		
	CO	09 05	mg/m^3	0.6	4	
		09 06		0.6		
		09 07		0.4		
	O_3	09 05	ug/m^3	82	100	
		09 06		90		
		09 07		86		
	PM_{10}	09 05	ug/m^3	42	50	
		09 06		31		
		09 07		23		
	$PM_{2.5}$	09 05	ug/m^3	25	35	
		09 06		19		
		09 07		13		

3-5

GB3095-2012

102°39′58.343″E 24°59′8.128″N

1.5km 3km

	2. 1.2km 2011-2030 7.9km 2020 2030 120.1km^2 42% 8000 m^3 2020 2030 2023 2023 2022 GB3838-2002 GB3838-2002

GB3838-2002

3.

2019-2029

1 GB3096-2008 1

1 N1 102°41′14.615″E 24°57′53.623″N

2 2025 09 07

3 Leq

4

3-6 **A**

N1	2025 09 07		53.6	55	
			43.0	45	

GB3096-2008 1

4.

500m

500m

5km

50m

500m

3-7 5

3-7

		°	°	m		m		
		102.686097	24.966033	1888	N	40	1200	GB3096-2008 1
		102.686097	24.966033	1888	WN	40	1200	GB3095-2012
	·	102.689895	24.966354	1886	EN	126	650	
	·	102.687084	24.967813	1886	N	300	380	
		102.688393	24.968571	1886	N	400	110	
		102.690550	24.968260	1886	EN	296	380	
		102.692910	24.964593	1886	EN	426	400	
		102.691612	24.960829	1884	E	268	320	
		102.691794	24.958407	1887	ES	280	300	
		102.683351	24.967073	1884	WN	387	1400	

		102.682964	24.964019	1885	W	180	60	
		102.68298626	24.96366965	1885	W	171	120	
		102.68384457	24.95680255	1884	S	347		GB3095-2012
		102.688457	24.961646	1887	E	20		GB3838-2002
		102.685625	24.954740	1886	S	1200		
		102.68384457	24.95680255	1884	S	347		

2011-2025

102°36'-102°48' 24°40'-25°02'

1950

1887.4 100 355.16

287.49

347m

2010 9 1865.3

Simocyclocheilus grahami

Schizothorax grahami *Acrossocheilus yunnanensis*

1.

GB16297-1996

3-8

3-8

	mg/m^3
	1.0

2.

GB12523-2011 3-9

3-9 **A**

70	55

3.

1.

GB14554-93 2

3-10

	m	
	15	4.9kg/h
		0.33kg/h
		2000

H_2S NH_3

GB18918-2002 4 3-11

3-11 /

1		1.5
2		0.06
3		20
4	%	1

2.

GB12348-2008 1 3-11

3-12 **B A**

1	55	45

3.

BOD COD NH_3-N TP

DB5301/T43-2020 A

TN DB5301/T43-2020

B

GB18918-2002 A

3-13 /

		B18918-2002	**B5301/43-2020**	
		A	**A**	**B**
1	COD	50	20	
2	BOD_5	10	4	
3	SS	10	/	
4		1	/	
5		1	/	
6		0.5	/	
7	N	15	5(10	10(15
8	N	5(8	1.0(1.5	

9	P	0.5	0.05	
10		30	/	
11	pH	6~9	/	
12	/L	10^3	/	
13		0.001	/	
14			/	
15		0.01	/	
16		0.1	/	
17		0.05	/	
18		0.1	/	
19		0.1	/	
≤12			12	

4.

1

GB18599-2020

2 GB18597-2023

3

80%

DA001 0.0429t/a 0.00174t/a

DA002 0.0341t/a 0.0014t/a

1

10950 m³/a COD 2190t/a 109.5t/a

	TP 5.475t/a TN 1095t/a 10950 m³/a COD 1170.555t/a 14.235t/a 778.545t/a 3.285t/a 2 1825 m³/a COD 365t/a 18.25t/a TP 0.913t/a TN 182.5t/a 3 12775 m³/a COD 2555t/a 127.75t/a TP 6.388t/a TN 1277.5t/a 100%

	1. 1 2 3 4 5 **2.** 1 1 $1m^3$ 2 **3.** 1 2 3 **4.**

	4-1

								/			
		102°41′16.402″E 24°57′43.599″N			102°41′16.358″E 24°57′47.337″N			/			
		4.9kg/h	0.33kg/h	2000	4.9kg/h	0.33kg/h	2000	1.5mg/m^3	0.06mg/m^3	20	1%

1.

1

H_2S NH_3

BOD_5 DO

	AOE 15m DA002 AAO 1 DA001 1#AOE 15m DA001 21000m^3/h 5 m^3/d 2024 DA001 0.0042kg/h 1.48mg/m^3 0.00017kg/h 0.06mg/m^3 2800m^3/h 478 DA001 0.0049kg/h 1.48mg/m^3 0.0002kg/h 0.06mg/m^3 3300m^3/h 558 DA001 GB14554-93 2 4.9kg/h 0.33kg/h 2000 DA002

2#AOE 15m

DA002 14000m^3/h

3 16.0m 3.0m 4.4m

4

1

AOE

15m DA002

2024 DA002

0.0039kg/h 1.52mg/m^3 0.00016kg/h

0.08mg/m^3 2500m^3/h 478

0.27mg/m^3

GB18918-2002 1.5mg/m^3

0.02mg/m^3

GB18918-2002

0.06mg/m^3 20

3

2024

0.000969%

0.00113%

	AOE AOE 95% 5 m^3/d DA001 DA002 **4.** DA001 DA002 347m **5.** GB3095-2012 GB3095-2012 AOE **6.** HJ819-2017

HJ 1083-2020

HJ 1120-2020

4-3

4-3

	DA001		1 /	GB14554-93 2
	DA002		1 /	
	1 3		1 /	GB18918-2002 4
			1 /	

1

1

5 m³/d

35 m³/d

2

BOD COD NH3-N TP

DB5301/T43-2020 A TN

DB5301/T43-2020 B

GB18918-2002

A

2

	COD7115.4925t/a 300.03t/a 248.2t/a 156.585t/a **1.** 70 90dB A HJ24-2021 4-6

4-6 **B A**

			dB A		/m								
					X	Y	Z	m	dB A		dB A	dB A	m
		1#	85		93.08	499.55	0	2	85		20	65	28
		2#	85		89.61	504.91	0	2	85		20	65	28
		3#	85		92.13	504.91	0	3	85		20	65	27
		4#	85		89.61	502.07	0	3	85		20	65	27
		5#	85		92.77	502.07	0	1	85		20	65	26
		6#	85		89.92	499.55	0	1	85		20	65	26
		7#	85		89.3	497.46	0	2	85		20	65	25
		8#	85		93.11	497.14	0	2	85		20	65	25
		1#	85		102.15	437.19	0	8	85		20	65	24
		2#	85		102.23	433.42	0	6	85		20	65	24
		3#	85		115.58	437.87	0	6	85		20	65	23
		4#	85		115.95	433.79	0	7	85		20	65	23
		5#	85		128.06	435.58	0	7	85		20	65	22
		1#	75		145.35	409.92	0	9	75		20	55	26
		2#	75		145.35	406.11	0	9	75		20	55	26
		1#	75		149.54	409.66	0	8	75		20	55	27
		2#	75		149.54	405.83	0	8	75		20	55	27
		1#	85		130.82	411.37	0	8	85		20	65	28

		2#	85		131.1	415.84	0	8	85		20	65	29
		3#	85		130.82	407.11	0	8	85		20	65	30
		4#	85		130.67	402.13	0	7	85		20	65	30
		1#	80		153.77	408.3	0	7	80		20	60	31
		2#	80		153.77	404.85	0	6	80		20	60	30
		1#	80		145.09	401.54	0	6	80		20	60	28
		2#	80		149.42	401.54	0	6	80		20	60	28
		1#	75		206.48	193.34	0	12	70		20	50	91
		2#	75		164.24	206.71	0	12	70		20	50	90
		3#	75		175.64	215.92	0	13	70		20	50	90
		4#	75		163.36	219.87	0	13	70		20	50	88
		5#	75		195.81	192.24	0	14	70		20	50	131
		6#	75		205.46	201.45	0	14	70		20	50	130
		7#	75		194.06	201.89	0	13	70		20	50	130
		8#	75		204.14	212.41	0	13	70		20	50	129
		9#	75		194.06	213.29	0	12	70		20	50	129
		10#	75		177.39	195.31	0	12	70		20	50	128
		11#	75		163.36	195.75	0	11	70		20	50	128
		12#	75		176.96	203.64	0	11	70		20	50	126
		1#	75		65.47	194.23	0	12	70		20	50	35
		2#	75		52.24	196	0	12	70		20	50	35
		3#	75		64.15	201.73	0	13	70		20	50	34
		4#	75		52.24	204.38	0	13	70		20	50	34

	5#	75	63.71	212.32	0	11	70	20	50	33
	6#	75	52.24	214.97	0	11	70	20	50	33
	1#	75	140.35	197.15	0	14	70	20	50	183
	2#	75	128.37	195.82	0	14	70	20	50	183
	3#	75	138.58	203.81	0	12	70	20	50	184
	4#	75	128.81	206.47	0	12	70	20	50	184
	5#	75	110.62	195.37	0	11	70	20	50	185
	6#	75	98.2	194.49	0	11	70	20	50	185
	7#	75	110.18	204.69	0	12	70	20	50	187
	8#	75	98.64	206.02	0	12	70	20	50	187
	1#	75	38.02	194.31	0	13	70	20	50	185
	2#	75	25.97	195.2	0	13	70	20	50	185
	3#	75	39.36	204.57	0	10	70	20	50	186
	4#	75	25.17	204.47	0	10	70	20	50	186
	5#	75	37.3	214.79	0	12	70	20	50	187
1#		75	61.14	279.17	0	12	70	20	50	187
2#		75	170.28	278	0	13	70	20	50	187
3#		75	60.68	270.49	0	13	70	20	50	186
4#		75	200.09	278.9	0	14	70	20	50	186
5#		75	34.17	276.89	0	14	70	20	50	185

		6#	75		135.04	275.74	0	15	70		20	50	185
		1#	75		135.04	275.74	0	15	70		20	50	186
		2#	75		104.32	275.74	0	12	70		20	50	186
		3#	75		135.35	265.17	0	12	70		20	50	185
		1#	80		68.36	327.38	0	3	80		20	60	29
		2#	80		57.17	326.21	0	3	80		20	60	30
		3#	80		43.75	326.67	0	2	80		20	60	31
		4#	80		35.89	326.21	0	2	80		20	60	32
		5#	80		26.17	325.74	0	2	80		20	60	33
		D 1#	85		70.97	432.99	0	3	85		20	65	29
		D 2#	85		64.34	432.45	0	3	85		20	65	30
		D 1#	75		58.57	431.43	0	2	75		20	55	33
		D 2#	75		51.97	430.96	0	2	75		20	55	35
		1#	75		73.1	460.25	0	2	75		20	55	36
		2#	75		63.63	460.73	0	2	75		20	55	36
		1#	80		100.78	476.75	0	3	80		20	60	80
		2#	80		101.74	471.48	0	3	80		20	60	80
		3#	80		100.78	466.21	0	3	80		20	60	81
		4#	80		101.26	461.41	0	3	80		20	60	81
		1#	85		238.89	258.45	0	5	85		20	65	25
		2#	85		238.26	254.98	0	5	85		20	65	24

		3#	85		238.17	250.96	0	6	85		20	65	24
		4#	85		239.12	245.57	0	5	85		20	65	23
		5#	85		239.44	233.53	0	6	85		20	65	23
		6#	85		239.44	239.55	0	6	85		20	65	22
		7#	85		238.81	229.42	0	6	85		20	65	22
		1#	85		105.39	407.73	3	3	85		20	65	68
		2#	85		107.92	407.87	3	3	85		20	65	70
		3#	85		110.49	407.45	3	3	85		20	65	72
		4#	85		113.48	406.16	3	3	85		20	65	74
		5#	85		116.47	406.59	3	4	85		20	65	76
		1#	80		104.42	404.7	3	4	80		20	60	68
		2#	80		107.45	403.83	3	4	80		20	60	70
		3#	80		111.34	401.67	3	4	80		20	60	72
		4#	80		113.5	402.54	3	4	80		20	60	74
		5#	80		117.4	401.24	3	2	80		20	60	76
		1#	75		104.34	410.21	3	2	75		20	55	68
		2#	75		106.68	410.11	3	2	75		20	55	70
		3#	75		109	409.76	3	2	75		20	55	72
		4#	75		111.85	409.76	3	2	75		20	55	74
		5#	75		115.76	409.22	3	2	75		20	55	76
			75		102.94	408.02	3	3	75		20	55	76
		1#	80		104.76	412.82	3	3	80		20	60	68
		2#	80		106.75	412.64	3	3	80		20	60	70

		3#	80		109.29	412.82	3	3	80		20	60	72
		4#	80		112.01	411.91	3	3	80		20	60	74
		5#	80		114.72	411.55	3	3	80		20	60	76
		1#	75		64.92	384.63	0	2	75		20	55	39
		2#	75		59.34	385.19	0	2	75		20	55	44
		1#	75		206.83	247.49	0	11	70		20	50	125
		2#	75		207	256.22	0	11	70		20	50	127
			75		207.16	265.06	0	12	70		20	50	129
			85		120.67	407.44	3	3	85		20	65	67

2.

/

HJ2.4-2021 A B

B.1

$$L_{oct}(r) = L_{oct}(r_0) - 20\lg(r/r_0) - \Delta L_{oct}$$

L_{oct} r ——

L_{oct} r_0 —— r_0

r—— m

r_0—— m

ΔL_{oct}——

$L_{w\ oct}$

$$L_{oct}(r_0) = L_{w\ oct} - 20\lg r_0 - 8$$

$$L_{oct\ 1} = L_{w\ oct} + 10\lg\left(\frac{Q}{4\pi r_1^2} + \frac{4}{R}\right)$$

$L_{oct\ 1}$——

$L_{w\ oct}$——

r_1——

R——

Q——

$$L_{oct\ 2} = L_{oct\ 1}(T) - (TL_{oct} + 6)$$

$L_{oct\ 2}$ T

i $L_{w\ oct}$

$$L_{woct} = L_{oct\ 2}(T) + 10\lg S$$

S—— m^2

$L_{w\ oct}$

3

i A $L_{Ain\ i}$ T

$t_{in\ i}$ j A $L_{Aout\ j}$ T

$t_{out\ j}$

$$L_{eq}(T) = 10\lg\left(\frac{1}{T}\right)\left[\sum_{i=1}^{N} t_{in\ i} 10^{0.1L_{Ain\ i}} + \sum_{j=1}^{M} t_{out,j} 10^{0.1L_{Aout,j}}\right]$$

T——

N——

M——

3.

4-7

4-7 **A**

	/m							
	X	Y	Z					
	35.13	477.59	1.2	29.94	29.94	55	45	
	230.01	322.60	1.2	26.51	26.51	55	45	
	180.29	-0.62	1.2	16.48	16.48	55	45	
	1.88	207.95	1.2	22.57	22.57	55	45	
	117.77	511.29	1.2	34.99	34.99	55	45	
				X		Y		

GB12348-2008 1

4.

50m 40m

-2.39 534.90

4-7 **A**

	24.83	24.83	53.6	43	53.61	43.07	55	45	

GB3096-2008 1

5.

	7. / 1m GB12348-2008 1 GB3096-2008 1 **1.** 1 35t/a 245t/a SW90 462-001-S90 2 137t/a 958t/a SW90 462-001-S90 3 80% 3040t/a 21290t/a

SW90 462-001-S90

4

3t/a

21t/a

SW17 900-003-S17

5

0.02t/a

0.17t/a 2025

HW08 900-214-08

T/I

4-9

4-9

	/	/	/	/	
	SW90			SW17	HW08
	462-001-S90			900-003-S17	900-214-08
	/	/	/	/	T/I
/t	35	137	3040	3	0.02

	1 /	1 /		1 /	1 /
	100%	100%	100%	100%	

2.

100%

3.

GB18599-2020

GB18599-2020

GB18597-2023

	a. b. c. d. e. GB18597-2023

	GB7665-2001 GB18597-2023 a. b. c. d. e. 4. 100% / 1 1# 1# **1.**

PAM PAC

4-10

		CAS	t	t	
1		/	2500	0.05	
				169-2018	

2.

HJ169-2018

Q

B

Q

Q

$$Q=\frac{q_1}{Q_1}+\frac{q_2}{Q_2}+\ldots\frac{q_n}{Q_n}$$

q_1 q_2 … q_n—— t

Q_1 Q_2 … Q_n—— t

Q 1

Q≥1 Q 1 1≤Q 10 2 10≤Q 100 3 Q≥100

Q

4-11

		t		t	Q
1		0.05		2500	0.00002
					0.00002

Q=0.00002 1

3.

4-12

4-12

1				

4.

1

2

3

5.

1

	A. B. C. D. E. F. G. GB15603-1995 GB17915-1999 GB17916-1999 A. B. A. B.

	A. B. C. D. A. B. C. 2 A. B. C. D. F. 119

	G. H. I. J. K. L. M. N. A. B. C.

6.

4-13

			t /a	t/a	t/a	t/a	t/a +/-
			0.071	0.012	0	0.083	+0.012
			0.0029	0.0005	0	0.0034	+0.00048
		COD	2190	365	0	2555	+365
		NH_3-N	109.5	18.25	0	127.75	+18.25
		TN	1095	182.5	0	1277.5	+182.5
		TP	5.475	0.9125	0	6.3875	+0.9125
			10.95	0	0	10.95	0
			210	35	0	245	+35
			821	137	0	958	+137
			19	3	0	22	+3
			18250	3040	0	21290	+3040
			0.5	0	0	0.5	0
			0.15	0.02	0	0.17	+0.02
			1	0	0	1	0
+				-			

	/			
	DA001		AOE	GB14554-93 2
	DA002		AOE	GB14554-93 2
				GB18918-2002
		COD SS TP TN		BOD COD NH_3-N TP DB5301/T43-2020 A TN DB5301/T43-2020 B GB18918-2002 A

GB1.2348-200
8 1

/ / / /

100%

/

A.

B.

C.

D.

E.

F.

G.

	A. B. A. B. C. D. A. B. C.
	1. 2. 3. 4.

100%

	m^3/a	4642.8	/	/	876	0	5518.8	+876
	t/a	0.071	/	/	0.012	0	0.083	+0.012
	t/a	0.0029	/	/	0.0005	0	0.0034	+0.000 48
	t/a							

18250	/	/	3040	0	21290	+3040