

(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

5

6

7

8

9

10

11

12

13

14

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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 <table> <tr><td></td><td>m³/d</td></tr> <tr><td></td><td>6</td></tr> <tr><td></td><td>10</td></tr> <tr><td></td><td>40 20 40</td></tr> <tr><td></td><td>5</td></tr> <tr><td></td><td>1</td></tr> <tr><td></td><td>1.2</td></tr> <tr><td></td><td>1.2</td></tr> <tr><td></td><td>2</td></tr> <tr><td></td><td>2.5</td></tr> <tr><td></td><td>1</td></tr> <tr><td></td><td>69.9</td></tr> </table> 6 m³/d		m ³ /d		6		10		40 20 40		5		1		1.2		1.2		2		2.5		1		69.9
	m ³ /d																								
	6																								
	10																								
	40 20 40																								
	5																								
	1																								
	1.2																								
	1.2																								
	2																								
	2.5																								
	1																								
	69.9																								
	29																								

2024

3

2022 11 4

2022 25

10

/

20

/

12

/

40

/

2025

97%

“ ”

	2 202131 1-3 1-3 <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td>91530100775519713B003Z</td><td></td></tr><tr><td></td><td>DB5301/T43-2020 A</td><td></td></tr></table>											91530100775519713B003Z			DB5301/T43-2020 A		
			91530100775519713B003Z														
	DB5301/T43-2020 A																

3

2022

20221

19

2022

2022 7

1-4

1-4

2022

1.

2.

3.

4.

	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	
	2		
	3	347m	

	4			
	5			
	6			
	7		2019 12 m ³ /d 5	
	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/m³ 2237t 1684t 3.2025 65 15m 50 / 1# 1 1 4. VOCs VOCs 5. 2025 90% 6. 2025 95 75	COD7115.4925t/a 300.03t/a 248.2t/a 156.585t/a	

90

97

7.

2025

90%

96%

85%

2025

		2.		
			“ ”	
		3.		
		4. “ ”		
		5.		
		6.		
		1. 2025		

2.

m³ 35.48
 GDP
 10%

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

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

	2022 9		
	1-7		
	NOx		
	60%		
	2025		
	65		
	50 /		

2024 1 1			

[illegible]

	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

[illegible]

5 m³/d

35 m³/d

5

 m^3/d

BOD COD NH₃-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 m³/d

35

m³/d

1

1#

10.0×10⁴m³/d

15.0×10⁴m³/d

1

1

6

2

1

2

2

5.0×10⁴m³/d

DN300 200m → DN1000 DN1200 120m DN50 300m 400m			
2-1			
		2 AAO 1# 1 6 1 2 2 1	
		2 5.0 m³/d 250m²	
		D=16m H=5.5m 200m² 4 1 Q 80m³/h	
		D DN1000 800m	
		→ DN100 550m	
		→ DN250 50m	
		→ DN300 120m	
		DN50 200m	
		→ DN1000 300m	
		DN1200 400m	
		43000m²	
		100m²	
		1 7 625.6m² 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 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 m³/d 0.83m /m h 1.24m /m h	39 m³/d 1.24m /m h	
	99.0m	93.0m	9.9m	1	30 m³/d	
	5.1m 4.8m					
	L B=21m	4.5m	2	5 m³/d	5 m³/d	
	27.0m	16.5m				
	5.8m	5				
	4	1	1	35 m³/d	39 m³/d 40 m³/d	
	4170m³/h					
	8.5m					
D	69.2m	51.3m	10.4m	2	35 m³/d	39 m³/d 39 m³/d
	3.5m					
	19.3m	17.4m	2.0m			
	4					
	4	32mm	1	35 m³/d	39 m³/d 39 m³/d	
	1400mm					
	179kW					
	16.0m					
	3.0m	4.4m	3	30 m³/d	30 m³/d	
	1					
	16.0m					
	3.0m	4.4m	1	5 m³/d	5 m³/d	
	1					
	37.0	17.1m				
	4		1	35 m³/d	35 m³/d	
	1					
	19.0	24.4m	1	35 m³/d	35 m³/d	

→ D	→	→	→	→	→
	→ AAO			→	→
	→	/			
	→	→			
		→	→	→	→
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

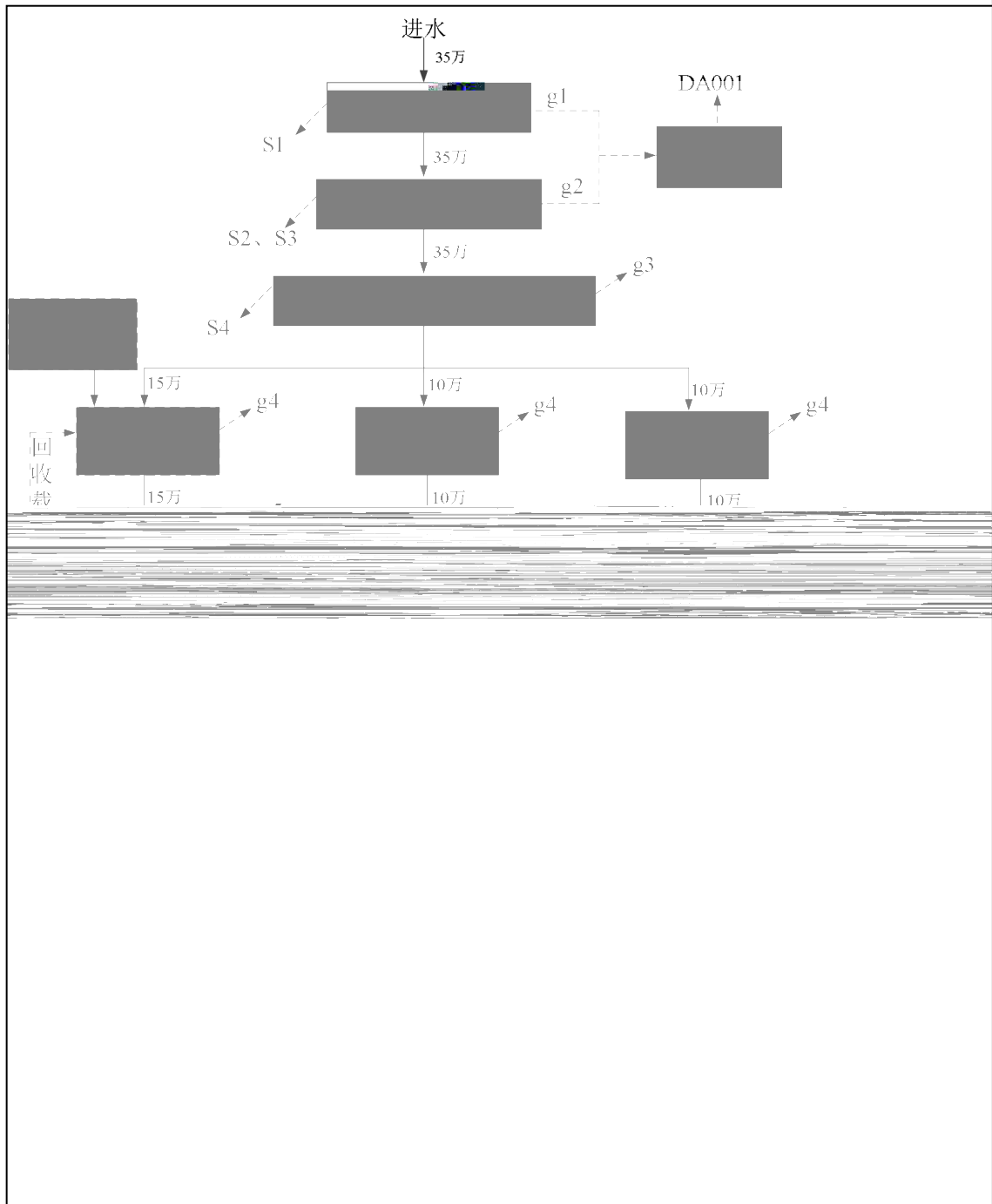
	20Nm h 7 bar	2
	20Nm h 7 bar	3
	Q=90-150L/h H=20m P=1.1	1
	7.5	2
	φ=1200mm N=4.0	4
	NP3127 Q=120m /h H=8.0m N=5kW	2
	DN1800Q=14000m h	1
	HCRKO/2500-30-7.5	8
	HCRKO/2500-30-11	8
	D≈2500mm N=7.5	10
	D≈2500mm N=5.5k	4
	PP4660	12
	PP4680 25 Q=1832m³/h H=1.5m	6
	NP3301	8
	NP3300	5
	NP3127	6
	Q=60m /h H=15m 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			

5 m³/d



2-1

		2		9445m ³ /h	
45	m ³ /d				
		8	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 ⁴ m ³ /d		15.0 10 ⁴ m ³ /d	
AAO		N		g4	
5					
3		2			
		SS		BOD ₅	
6				40m 4.5m	
15072m ²		5.43h		0.83m ³ /m ² h	
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 ² h
15.24m ³ /m ² h			17.38m ³ /m ² h		19.31m ³ /m ² h

315 30
2008 5 20
2009 7 10
72km²
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 m³/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

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

0

	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	
	2024.08.14			354	354	269	354	2000	
			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/m ³	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/m ³	0.08	0.07	0.08	0.08	/
	kg/h	0.00016	0.00013	0.00016	0.00015	0.33(kg/h
DA002		478	416	478	478	2000
	mg/m ³	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		
			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		

		2024.10.22			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.				

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 ₂ S
	HJ2.2 2018		D		D.1
	3-1				
	SO ₂		20	60	μg/m ³
		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/m ³
		1	10	10	
	TSP		80	200	μg/m ³
		24	120	300	
1		20	20		
3-2					
		1			
	mg/m ³	0.2			
	mg/m ³	0.01			
2024		2024			
99.7%		221	144	1	

2023

32

8

GB3095-2012

TSP NH₃ H₂S

1

G1

.

102°41'22.195"E

24°57'56.074"N

2

2025 9 5 -9 7

3

TSP NH₃ H₂S

4

3-3 / 3

G1

				0.2		0.01
TSPGB3095-2012						
NH ₃ H ₂ S			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 120.1km² 42% 8000 m³ 2020 2030 2023 2023 2022 GB3838-2002 GB3838-2002
--	--

	GB3838-2002 3. 2019-2029 1GB3096-2008 1 1N1102°41'14.615"E 24°57'53.623"N 22025 09 07 3Leq 4 3-6 B A <table><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>N1</td><td>2025 09 07</td><td></td><td>53.6</td><td>55</td><td></td></tr><tr><td></td><td></td><td></td><td>43.0</td><td>45</td><td></td></tr></table> GB3096-2008 1 4.							N1	2025 09 07		53.6	55					43.0	45	
N1	2025 09 07		53.6	55															
			43.0	45															
	500m 500m 5km 50m																		

500m								
3-7								
5								
3-7								
		°	°	m		m		
		102.6860 97	24.96603 3	1888	N	40	1200	GB3096-20 08 1
		102.6860 97	24.96603 3	1888	W N	40	1200	GB3095-2012
	.	102.6898 95	24.96635 4	1886	E N	126	650	
	.	102.6870 84	24.96781 3	1886	N	300	380	
		102.6883 93	24.96857 1	1886	N	400	110	
		102.6905 50	24.96826 0	1886	E N	296	380	
		102.6929 10	24.96459 3	1886	E N	426	400	
		102.6916 12	24.96082 9	1884	E	268	320	
		102.6917 94	24.95840 7	1887	E S	280	300	
		102.6833 51	24.96707 3	1884	W N	387	1400	

		102.6829 64	24.96401 9	1885	W	180	60	
		102.6829 8626	24.96366 965	1885	W	171	120	
		102.6838 4457	24.95680 255	1884	S	347		GB3095-2012
		102.6884 57	24.96164 6	1887	E	20		
		102.6856 25	24.95474 0	1886	S	1200		
		102.6838 4457	24.95680 255	1884	S	347		GB3838-20 02

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			B A					
	70		55						
	3.								
	1.								
				GB14554-93 2					
	3-10								
			m						
			4.9kg/h						
			0.33kg/h						
			2000						

	H ₂ S 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	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	m ³ /a	COD	2190t/a	109.5t/a

[illegible]

	1. 1 2 3 4 5 2. 11m³ 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

1

		4-6		B A									
		dB A		/m			m	dB A		dB A			
					X	Y					Z	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

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

L_{oct}

r

——

L_{oct}

r_0

——

r

——

r_0

——

ΔL_{oct}

——

r_0

m

m

$$L_{\text{w oct}}$$

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

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

$L_{\text{oct } 1}$

——

$L_{\text{w oct}}$

——

r_1

——

R

——

Q

——

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

-2.39 534.90



4-7					B 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

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					B
2.	HJ169-2018 Q B Q Q $Q = \frac{q_1}{Q_1} + \frac{q_2}{Q_2} + \dots + \frac{q_n}{Q_n}$ q₁ q₂ ... q_n ————— t Q₁ Q₂ ... 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. GB17915-1999 GB17916-1999 A. B. A. B.
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	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.
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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/T43-2 020 A TN DB5301/T43-2 020 B GB18918-2002 A

GB1.2348-200
8 1

/ / / /

100%

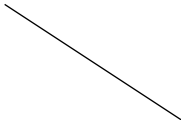
/

- 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