

A photograph showing a boat filled with a large quantity of dead crabs and fish, likely a result of environmental pollution. The boat is on a body of water, and the surrounding area appears to be a lake or river. The text is overlaid on the image.

The sewage treatment plant in  
Suzhou Industrial Park runs idling!  
**Who will be responsible  
for the deaths of fish  
and crabs in Hongze Lake?**

**SIP Lvse Jiangnan Public Environment Concerned Centre**

**September , 2018**

***The sewage treatment plant in Suzhou Industrial Park runs idling!  
- Who will be responsible for the deaths of fish and crabs in Hongze Lake?  
Summary***

**Background**

In the early morning of August 25, 2018, a large amount of unidentified excess sewage flooded from the upper reaches of Anhui Province, and it was collected into Hongze Lake, Jiangsu through the Xinsui River, Laosui River, and Xinbian River in Anhui, resulting in the massive death of 667 hectares of fish and crabs in Linhuai Town, Sihong County, Jiangsu, with a contaminated aquaculture area of nearly 2,667 hectares.

This time, the unknown sewage from the upstream of Anhui province flowed into Hongze Lake, which made a large area of water black and smelly, and seriously damaged the lake's ecological environment and the safety of drinking water. The flood discharge turned into sewage discharge, and Jiangsu environmental protection department had to make a decision to stop drinking water from Hongze Lake.

**我省调查洪泽湖鱼蟹死亡事件——初步分析受特大暴雨自然洪灾导致**

安徽环保 1周前

**8月25日起，受强降雨影响，上游污水汇入洪泽湖，事发区域水质恶化，出现大量鱼蟹死亡现象。**

事件发生后，安徽省委、省政府领导高度重视，多次做出批示，安徽省环保厅会同省直有关部门，积极配合江苏省有关部门展开调查处理。相关部门对涉及的宿州、淮北等市进行全面调查和污染源排查，对入境和出境断面进行取样监测，密切关注水质变化情况；会同江苏省开展联合监测和摸排调查。宿州市组织召开新濉河水质研判分析会议，市水利部门实施涵闸调控，逐步减少泄洪量。

洪泽湖事发区域汇水主要来自新濉河和新汴河。新濉河源自我省宿州市，全长138公里，其中宿州市境内长度120公里，主要支流奎河和运料河源自江苏省徐州市。新汴河源自宿州市，全长127公里，其中宿州市境内长度108公里，上游有淮北市沱河和萧濉新河来水。

**经排查，新濉河流域宿州市境内工业污染源只有埇桥经济开发区，园区建有完善的污水集中处理设施。经排查，埇桥经济开发区污水处理厂运行正常，出水无超标现象，无工业污染源违法排放废水行为。新汴河宿州市境内没有工业企业入河排污口以及城市生活污水排入。**

Fig. 1 The Environmental Protection Department of Anhui Province issued a notice on September 6th.

In response to the massive death of fish and crabs in Hongze Lake in Jiangsu province caused by the discharge of flood discharge in the upstream of Anhui Province, PECC carried out field environmental research along the Xinbian River and Xinsu River in order to trace and identify the source of pollution in the upstream.

**The site of research: The fishermen have no harvest all year round, crying without tears**

On September 14, 2018, staffs from PECC rushed to Erhe Village, a fish and crab breeding area in Linhuai Town, Hongze Lake. Farmer Liu told our staffs, "My family has more than 30 acres of aquaculture areas and all fish and crabs died. The sewage let us lose more than 100,000 yuan ..." Liu also showed the aquaculture registration certificate to our staffs.

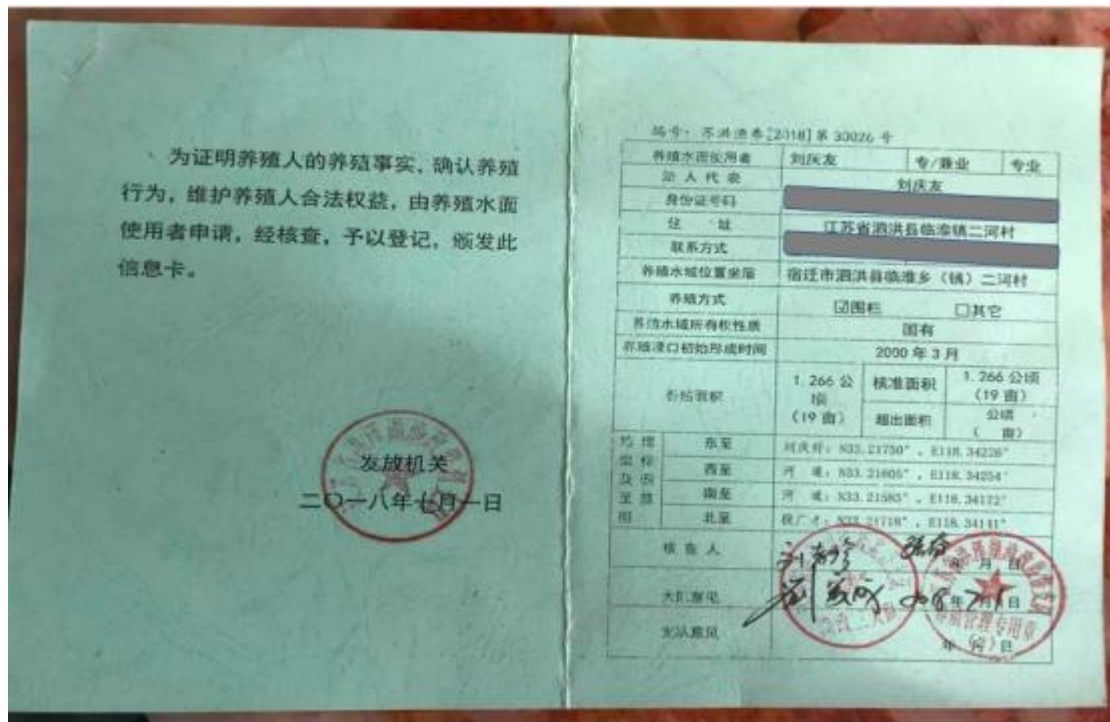


Fig. 2 Aquaculture registration certificate of Liu Qingyou



Fig. 3 Aquaculture farmer, Liu Qingyou



Fig. 4 Farmer Jiang Houyou is looking at his boatload of dead crabs (this photo is provided by Jiang Houyou).



Fig. 5 A aquaculture farmer, Dong Shoumei, is crying.

In Shengli Village, the staffs from PECC were surrounded by several villagers. "I've never encountered such pollution until this age", a 71-year-old man surnamed Dong told the staff of PECC, "This time, it is our Shengli Village that has suffered the most. The 13,000 acres of shrimp and crab in more than 150 households were basically wiped out in a few days, and even the water plants for raising crabs all died, and the crab farmers in the village could not eat or sleep, and all their efforts for a year went down the drain. This year's crabs are very fat, if there is no pollution, you can see crab catchers everywhere. Can you see people in the lake? Is there still grass in the crab pond?"



Fig. 6 Mr. Dong, 71, from Shengli Village



Fig. 7 The lake was eerily quiet.

In the Government of Linhu Town, CAI Ya, the chairman of the people's Congress of the town government, received the staffs from PECC. Chairman Cai gave a detailed introduction to the pollution situation of Hongze Lake. So far, the public security department has registered the case, and the

environmental protection department of Jiangsu Province has participated in the supervision. The Provincial Environmental Protection Department and Suqian Environmental Protection Bureau have entrusted a third-party testing unit to take water samples on August 26, and the investigation is under way.

Chairman Cai revealed that several neighboring counties and cities are actively negotiating, but the result has not yet come out. The water quality is polluted, the ultimate cause has not been determined, and the dead fish and crabs have been sealed. Regarding the large amount of unidentified sewage caused by the flood discharge from the upstream of Anhui, the area of damaged farmers is too large. The governments of the two places (Jiangsu and Anhui) are currently negotiating. At present, it is difficult to identify the subject of infringement. The flood discharge in Suzhou may contain domestic and industrial sewage, but the Anhui government reported that there was no industrial wastewater through People.com.cn and Xinhuanet.com.

### Carry out front-line investigations to identify pollution sources on the spot

In order to trace and identify the source of the unidentified sewage in the upper reaches of Anhui, PECC conducted a field research on the New Bian River and New Sui rivers flowing through Anhui. About 40 kilometers away from the upper reaches of Hongze Lake, the staffs of PECC found a flood control board for Tuanjie gate issued by Suzhou Water Conservancy Bureau on the north side. The management board shows that the management unit is Tuanjie Gate Management Office of Suzhou Water Conservancy Bureau. Next to the public board, there is a public sign for the buffer zone of New Bian River in Huai River Basin, Anhui and Jiangsu Province. The information of the sign shows that the starting section location is: 104 State Road Highway Bridge in Si County, Anhui Province, and the ending section location is: Tuanjie gate in Sihong County, Jiangsu Province. The information on the public notice board shows that the jurisdiction of Tuanjie gate belongs to the administrative unit of Si County, Anhui Province, while the Unity gate belongs to Si Hong County, Jiangsu Province. Tuanjie gate is under the jurisdiction of a different place.





Fig. 8 Board of the information of the responsibility of flood control of Tuanjie Gate of Suzhou Water Conservancy Bureau

Our staffs found that the Tuanjie gate was closed and the water level was about seven meters at this time. A large amount of blue algae floating on the water surface was accompanied by a stench.



Fig. 9 A large number of blue algae floats on the water upstream of the impounding.



Fig. 10 Large amount of dead grass and debris exposed in the riverbed.



Fig. 11 There are turbid brown water in the water storage area, and scattered water plants are dying on the river banks.

#### **Field investigation of the Kuhe gate**

At the Kuhe gate on the Xinsui River about 15 kilometers northwest to Tuanjie gate, staffs of Pecc found that the Kuhe gate was discharging a small amount of floods, and the water quality of the this area was good, and no obvious pollution was found.



Fig. 12 The storage area of Kuhe gate



Fig. 13 The Kuhe gate is being lifted to release water.

A tablet of Anhui-Jiangsu buffer zone in Xinsui River next to the Kuhe gate shows that the functional area of this river section is: 12.0km long from Kuhe gate to the boundary of Anhui-Jiangsu. The management target of water quality is: Class III, and the representative section of water quality is: on the Kuhe gate.



Fig. 14 A tablet of Anhui-Jiangsu buffer zone in Xinsui River

Field investigation of the Si County



Fig. 15 The distribution of industrial zone in Si county

## ■ 总体布局规划图



Fig. 16 General planning map of Si County (2008-2030)



Fig. 17 Sewage treatment plant in Si County



Fig. 18 The sewage outlet of the sewage treatment plant is draining water.



Fig. 19 The information board of the discharge mark next to the sewage treatment plant

On June 28, 2018, China Environmental Network released the “Notice on the Special Supervision of the Water Environment in Si County”. The report stated that Tuohe Guanzui is one of the five national assessment sections in Suqian City, and the water quality target is Class III. After sampling and testing by higher-level departments, the water quality of Tuohe, Tanghe, and Beituohe exceeded the standard in May and June, and the water quality of the exit sections fell below Class V. The water environment is severe and the main outstanding problems are listed.

The main problems are:

- The water quality of the branch rivers that flow into the Tang River and the Tuo River in the Si County area is poor, and the water pollution prevention and control work is not enough, and there is a tendency to continue to deteriorate.
- The implementation of the responsibility of the river chief system is not in place. There are dead water plants and floating objects on the river, which cannot be cleaned up in time, causing water pollution.
- Although most of the township sewage treatment plants have been built but have not been put into operation normally, the sewage collection and treatment rate is low, and the sewage treatment plants’ sewage outlets are not standardized, the approval procedures are not

completed, and the online monitoring device is not installed.

- Crops are planted on the waterfront slope of the river bank in Tuohu Nature Reserve, and the vegetation on the river bank has been damaged, which may pollute the water quality. There is a lot of aquaculture in the river in Fanji Village in the reserve, most of which is seine farming.
- Pollution from livestock and poultry farming remains a serious problem. Pollution control facilities in some farms are not perfect, and manure disposal is incomplete. For example, the storage tank of Gongfuyuan farm is partially damaged.

The screenshot shows a webpage from '中国环保网' (China Environmental Network) with the URL 'HUANBAOJS.COM'. The navigation bar includes '首页', '环保新闻', '生态环境', '环保家居', '环保热点', '环保项目', and '环保'. A sub-header '环保法制' is visible. The main article title is '关于泗县水环境专项督导情况的通报'. The article text, written in Chinese, discusses water quality issues in Si County, mentioning that the water quality target is Class III, but recent monitoring shows it has degraded to Class V. It lists several key problems: (1) Poor water quality in tributaries of the Tang and Tuohu rivers, (2) Inadequate enforcement of river长制 (river chief system), (3) Non-normal operation of wastewater treatment plants, (4) Damage to vegetation in the Tuohu Nature Reserve, and (5) Outstanding pollution from livestock and poultry farming.

Fig. 20 Part of “Notice on Water Environment and Project Supervision in Si County”

PECC investigated the Shiliang River, which is the discharge water body of the sewage treatment plant,



and found that the underground culvert gate of the river, about 3 kilometers downstream of the sewage treatment plant, and the south side of the gate is the Xinbian River. At this time, the underground culvert gate of Shiliang River is closing, the water body in the water storage area is black and smelly, and a large amount of blue algae and garbage are floating on the water surface. It can be clearly seen that there are obvious dirt and water marks in the gate body. According to the surrounding residents, when the Shiliang River encounters a high water level, the sewage from the Shiliang River will be discharged into the Xinbian River through the underground culvert gate of Shiliang River.



Fig. 21 The underground culvert gate of Shiliang River



Fig. 22 Water condition of the underground storage area of Shiliang River: there are obvious dirt water traces.

#### **Field investigation of the Lingbi County**

It is located in Lingbi County, 30 kilometers upstream of the underground culvert gate on the Shiliang River of Xinbian River in Si County (about 120 kilometers from Shengli Village of Hongze Lake). According to the overall plan of Lingbi County (2011-2030), the plan arranges urban industrial land in the northern industrial zone and economic development zone. The northern industrial zone is dominated by modern manufacturing industries such as agricultural and sideline products processing, electromechanical and garment manufacturing, and the economic development zone is dominated by agricultural and sideline products processing, knitted garments, building materials processing and electronic and electrical appliances manufacturing.



Fig. 23 Distribution of industrial zone in Lingbi County



Fig. 24 Lingbi sewage treatment plant

On the opposite side of the sewage treatment plant, a sewage outlet billboard was erected. The information column of the board displayed the name: Lingbi County Dongguan Luohe Bridge domestic sewage into the river outlet. The function area of the discharged water is: Yuehong River Lingbi Agricultural Water Area. The goal of water quality protection is: Class V.



Fig. 25 The board of Lingbi County Dongguan Luohe Bridge sewage into the river sewage outlet

Our staffs are 1.5 miles from the lower reaches of the Luo River in the southeast of Lingbi County Sewage Treatment Plant. A black and smelly river is being treated. The river is densely covered with oxygen-exhausting facilities, and the black and smelly river finally flows through. the sluice to the Xinbian River.



Fig. 26 Smelly waterways are densely populated with oxygen burst facilities that are being oxygenated.

A few hundred meters away from the black and smelly river is the Lingbi gate. The gate body falls to store water, the water level is very high, and the water quality is good. We can still vaguely see the vegetation in the lower reaches of the river was once flooded by the river traces.



Fig. 27 Lingbi control gate



Fig. 28

#### Field investigation of Suzhou City

PECC continued to drive to Suzhou City, 80 kilometers away from Lingbi County (about 200 kilometers away from Shengli Village of Hongze Lake) to conduct investigations. According to public information, Suzhou City has fully promoted the “3111” project. The first industries such as footwear, board, food, building materials, cloud computing, and biochemical medicine have gradually grown. 10 projects with an output value of more than 100 million yuan. There were 92 enterprises in the cloud computing industry in the high-tech zone, and the shoe city became one of the 11 characteristic shoe industry clusters in the country.



Fig. 29 Distribution of industry in Suzhou

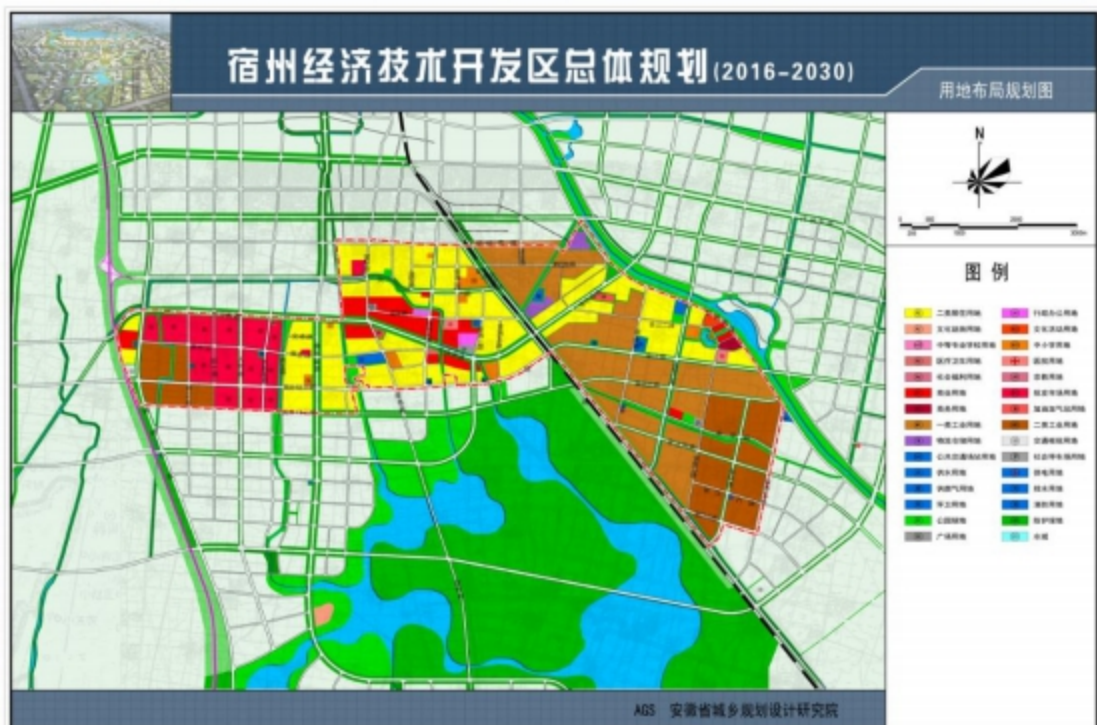


Fig. 30 Overall planning of Suzhou Economic and Technological Development Zone 2016-2030

PECC came to the Suzhou City Sewage Treatment Plant, a large-scale sewage treatment plant located on the Yanshan Line in Suzhou, for investigation.

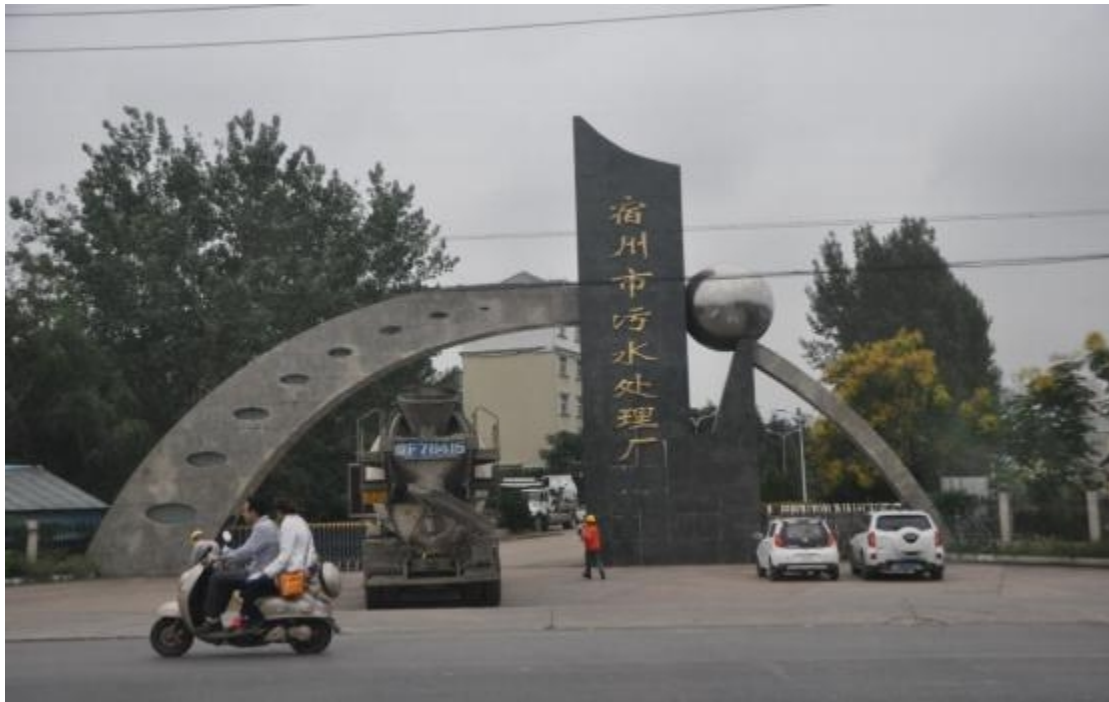


Fig. 31 Suzhou Chengnan Sewage Treatment Plant

Next to the signboard of the discharge outlet of the Chengnan Sewage Treatment Plant in Suzhou City, the outlet is discharging a large amount of waste water to the Yunliang River, and the Yunliang River flows to the Tuo River and eventually merges into the Xinbian River.



Fig. 32 Sign board for the sewage outfall of the Chengnan Sewage Treatment Plant in Suzhou





Fig. 33 The sewage outlet of the Chengnan Sewage Treatment Plant is draining a lot of water.



Fig. 34 Correlation diagram of Yunliang River, Tuo River and Xinbian River

The water quality of Category IV and Category V in several assessment sections in Suzhou City has failed to meet the water quality requirements of Category III for three consecutive months.

On August 16, 2018, the Suzhou Municipal Environmental Protection Bureau issued a letter from the Office of the Suzhou City Water Pollution Prevention and Control Work Leading Group on notifying the progress of the Water Pollution Prevention and Control Action Plan from January to July 2018. It is

disclosed in the surface water environmental quality report that there are 5 national assessment sections in the city, namely Tuohe Luling section, Tuohe Guanzui section, Xinbianhe Tuanjie gate section, Huihe Hugou, and Xinsuihe Daqu section. The water quality targets for 2018 are Category IV, Category III, Category IV, Category IV, and Category V respectively. The water quality of the five assessment sections in July was respectively Category IV, Category V, Category IV, Category IV, and Category IV. Among them, the assessment section at Tuohe Guanzui failed to meet Category III water quality requirements for three consecutive months.



Fig. 35

### **False rectification, not strict and unrealistic! Criticized by the Ministry of Ecology and Environment**

In July 2018, the inspection found that the work of Suzhou city was not strict and practical, and the rectification avoided serious problems and adopted light ones. Although the Chengdong Wastewater Treatment Plant has been completed and put into operation, its supporting branch pipeline network has basically not been constructed, and the domestic sewage in the relevant area cannot be collected in place. On-site sampling and monitoring found that the chemical oxygen demand and ammonia nitrogen concentration of the sewage treatment plant inlet water is only 15 mg / l and 0.71 mg / l, respectively. The sewage treatment plant was in an idling state. The rectification situation reported by Anhui Province is seriously inaccurate.

#### **三、安徽宿州市上报督察整改情况不严不实**

2017年7月，中央环保督察反馈指出，宿州市“十二五”期间规划建设城东污水处理厂至今尚未建成，区域内大量生活污水直排，导致受纳水体长期为劣V类。为此，安徽省整改方案要求，2018年6月底前，完成城东污水处理厂收水区域城中村、老旧城区和城乡结合部污水截流、收集，确保区域内生活污水得到收集处理。2018年7月，安徽省报送情况时称该问题已完成整改。

但2018年7月检查发现，宿州市工作不严不实，整改避重就轻，城东污水处理厂虽然已经建成投运，但其配套支管网基本没有建设，相关区域生活污水无法收集到位。现场取样监测发现，该污水处理厂进水化学需氧量和氨氮浓度分别仅为15毫克/升和0.71毫克/升，清水进、清水出，污水处理厂处于空转状态。安徽省上报的整改情况严重失实。

Fig. 36

#### **Idle sewage treatment plant in Suzhou Industrial Park**

PECC found that this is not consistent with the announcement issued by the Environmental Protection Department of Anhui Province on September 6, 2018: The source of industrial pollution in Suzhou City in the Xinsui River Basin is only the Yongqiao Economic Development Zone. The sewage treatment plant in the park is operating normally, and the effluent does not exceed the standard, and there is no illegality. In fact, the Ministry of Environmental Protection announced on September 18 that the Suzhou Chengdong Sewage Treatment Plant was running idle, directly denying the notification of the Environmental Protection Department of Anhui Province. The report of the Environmental Protection Department of Anhui Province requires discussion.

#### **Does the flood discharge contain industrial wastewater?**

It is also inconsistent with the fact that there is no sewage outlet for industrial enterprises or urban domestic sewage in Suzhou city of the Xinbian River released by Anhui Provincial Department of Environmental Protection on September 6, 2018. The southeast of Suzhou City is the Yongqiao Economic Development Zone. Where does the large amount of industrial wastewater that have not been treated by the sewage treatment plant flow to? Will it directly flow into the branch river and finally open the gate and release it into the Xinbian River? If this is the case, whether Suzhou Industrial

Park is one of the main parties responsible for the water pollution incident, which is also worthy of research and recognition by all parties.



Fig. 37 Suzhou control gate

When the staff of Green Jiangnan asked whether there was industrial waste water in the downstream pollution caused by the discharge of floodgates at the end of August, several anglers said that the water in the area was black and smelly during the flood, which may contain a lot of sewage.



Fig. 38

**Field Investigation of Huangqiao Gate in Xinsui River**

About 50 kilometers to the north of the Suzhou Control Gate, staffs from PECC drove on-site investigations to the Xinsui River and Huangqiao Gates in Suzhou and Xuzhou.



Fig. 39 Huangqiao gate



Fig. 40 Information board of Kuihe Suzhou-Anhui buffer zone in water function area of Huai River Basin

At this time, Huangqiao gate is releasing flood from a single hole lifting gate. The water body downstream of Huangqiao gate (Shicun area, Suzhou City, Anhui Province) is dark brown, and the

water waves impacted by the flood discharge are accompanied by a choking smell.



Fig. 41 Huangqiao gate being discharged

In the Huangqiaozha water storage area (the entrance area of Nangou Railway, Xuzhou City, Jiangsu Province), the water body is relatively clear without any peculiar smell.



Fig. 42 The water body in the Huangqiao gate water storage area is clear.



Fig. 43 The research area of PECC this time

PECC found that pollution was indirectly discharged into the Xinbian River

Green Jiangnan found that multiple gates have been set up along the Xinbian River, and the water environment of the branch rivers in the gates is mostly black and smelly. According to published information on the national assessment section of surface water, most branch rivers are in Category IV and Category V, some are also poor V. It is mainly caused by serious pollution of livestock and poultry breeding, inadequate collection and treatment of urban and rural domestic sewage, irregular treatment of black and odorous water bodies, and inadequate cleaning and remediation of river pollution. Pile of rubbish, wheat straw, toilets, and sewage discharge in branch rivers are common, and the water environment of branch rivers is worrying.

Green Jiangnan found that there are also industrial development zones in Si County, Lingbi County and Suzhou City, and their industrial wastewater will also have a direct impact on Xinsui River and Xinbian River. The wastewater discharged from the sewage treatment plants on both banks of the Xinbian River is directly collected into the branch river separated by a gate of the Xinbian River. The governance of water environment of the branch river is not in place, and the black and smelly water body of the branch river and the floating debris gathered on the river surface to pass through the coastal gates. The flood discharge of the Xinbian River eventually turned the flood discharge corridor into a sewage discharge channel.

#### **Lack of monitoring data of water quality assessment section makes it difficult to ensure the public's right to know**

PECC searched for the monitoring data of the water quality assessment of the cities and counties passing through the Xinsui River and Xinbian River in Anhui Province. Only the Lingbi County People's Government Affairs Disclosure Platform and the Suzhou Municipal Environmental Protection Bureau disclosed the monitoring data of water quality assessment for some years. According to the information, the water quality monitoring data of most sections are lacking and have not been fully disclosed. The public's demands for knowledge cannot be met, and extensive participation in supervision seems ineffective.

#### **Use Azure Map APP to report the black and smelly rivers on site**

In addition, PECC reported some of the black smelly rivers found on site through the Azure Map APP, hoping to get the relevant water departments to re-regulate.

#### **Implementation of the cooperation agreement will greatly reduce the economic losses of farmers**

Cai Ya, chairman of the People's Congress of Linhuai Town, Sihong County, stated that although upstream Anhui claimed that the sewage discharged does not contain industrial sewage, according to the regional flood discharge coordination mechanism, it is most urgent to notify the downstream administrative area at least 6 hours in advance so that the downstream area can make proper arrangements. Flood prevention measures and timely arrangements for farmers to carry out self-rescue operations will greatly reduce the economic losses of farmers.

#### **Should the responsible parties be held accountable for the failure of the joint prevention**



## **mechanism?**

In fact, there are laws and regulations for the treatment mechanism of inter-provincial water pollution in Huai River, which depends on whether the functional departments have actually started the mechanism or not. At present, no relevant incident handling notification has been found from the official website of Huai River Water Conservancy Commission and Huaie River Basin Water Resources Protection Bureau.

Regardless of the 24-hour, 12-hour, or 6-hour notice, in this incident, the upstream flood discharge of Anhui did not promptly notify the downstream administrative area, and the cross-basin responsible departments did not promptly activate the relevant joint emergency response mechanism. If the cross-regional coordination mechanism signed this time remains on paper, the incident of the pollution of the flood discharge that occurred this time did not happen by accident and will continue to repeat itself.

## **To implement compensation, there are laws to follow**

This upstream flooding in Anhui gushed a large amount of unidentified sewage, resulting in significant economic losses to fish and crab farmers in Linhuai Town, Sihong County, Jiangsu Province. On September 19, 2018, the Ministry of Environmental Protection notified the Suzhou Chengdong Sewage Treatment Plant to be idling. Resulting in a large amount of industrial sewage discharge to an unknown destination, the responsible subject is clear. In this incident, it should bear the main responsibility. The “Ecological and Environmental Damage Compensation System Reform Plan” will provide an important basis for the compensation starting work of this incident.

## **Do a good job of post-disaster reassurance**

PECC was informed by the Linhai Town Government in Jiangsu Province that the public security authority has filed a case on the pollution incident. Relevant personnel of the town government stated that the local procuratorate, water conservancy department, environmental protection bureau, etc. have already started processing, the local civil affairs department and health department are carrying out the rescue of the villagers in an orderly manner, the cross-provincial joint investigation is under way, and the follow-up responsibility of the relevant units will be further carried out.

## **Observation and Suggestion**

This flooding pollution incident caused great damage to the local fishermen and the ecological environment of Hongze Lake, and we also observed that the efficiency of our country's environmental policy in the implementation of joint disposal mechanisms for transboundary environmental pollution still needs to be improved. For this reason, we suggest that the relevant responsible departments of each basin in the country to improve the enforcement capacity of emergency treatment, especially to clarify the process, procedure and implementation of the main responsibility in the joint mechanism to prevent the recurrence of similar incidents.

**English Translation Accuracy Disclaimer: This document has been translated by PECC for the purposes of reference only. If any questions arise related to the accuracy of the information**

**contained in this translation, please refer to the Chinese version of the document. Any discrepancies or differences created in the translation are not binding and have no legal effect for compliance or enforcement purpose.**