



## Law Enforcement On River Pollution Due To Batik Industry Waste In Simbang Kulon Sub-District, Buaran Regency, Pekalongan

**Titis Pramesti**

Faculty of Law, Universitas Muhammadiyah Purwokerto

Email: titispramesti26@gmail.com

### Abstract

One of the sites that became the hub of the batik business is Simbang Kulon Village, Buaran District, Pekalongan Regency. This industry has an impact since it produces solid waste in the form of wax and liquid waste in the form of bleach and batik cloth colors, both of which can pollute rivers because the garbage is released directly into them without being treated first. The study goal is to determine and analyze how efforts are made to enforce the law against river pollution due to batik industry waste in Simbang Kulon Village, Buaran District, Pekalongan Regency, based on Perda Pekalongan Regency Number 5 of 2014 concerning Wastewater Management, as well as to identify and analyze the factors that impede efforts to enforce the law against river pollution due to batik industry waste in Simbang Kulon Village, Buaran District, Pekalongan Regency. The normative juridical method, also known as the doctrinal method, is a process through which the law analyzes or investigates itself from the perspective of itself as a value system, a conceptual system, and a positive legal system.

Keywords: Law enforcement, river pollution, and waste from the batik industry.

### Abstrak

Kelurahan Simbang Kulon, Kecamatan Buaran, Kabupaten Pekalongan merupakan salah satu daerah yang menjadi sentra industri batik. Dampak dari industri ini menghasilkan limbah padat berupa lilin dan limbah cair dari obat pemutih maupun pewarna kain batik yang dapat menyebabkan pencemaran karena limbah tersebut dibuang langsung ke sungai-sungai sekitar tanpa diolah terlebih dahulu. Tujuan dari penelitian ini adalah untuk mengetahui dan menganalisa bagaimana upaya dalam penegakkan hukum terhadap pencemaran sungai akibat limbah industri batik di Kelurahan Simbang Kulon, Kecamatan Buaran, Kabupaten Pekalongan berdasarkan Perda Kabupaten Pekalongan Nomor 5 Tahun 2014 tentang Pengelolaan Air Limbah serta mengetahui dan menganalisa faktor penghambat upaya penegakan hukum terhadap pencemaran sungai akibat limbah industri batik di Kelurahan Simbang Kulon, Kecamatan Buaran, Kabupaten Pekalongan. Metode yang digunakan dalam penelitian ini adalah metode yuridis normatif atau dikenal dengan metode doktrinal, yaitu hukum meninjau atau milik dirinya dari sudut pandang dirinya sendiri sebagai sistem nilai, sebagai sistem konseptual dan sebagai sistem hukum positif.

Kata kunci: Penegakkan Hukum, Pencemaran Sungai, Limbah Industri Batik.

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## I. Introduction

Batik is an Indonesian cultural heritage whose existence has been protected as stipulated in Article 40 paragraph (1) letter J of Law Number 28 of 2014 concerning Copyright, which states, "Batik artwork is a contemporary batik motif that is innovative, contemporary not traditional". Batik is said to have high artistic value because it is a traditional artwork and already has its identity, for areas with traditional batik can not be separated from the development of cultural life.<sup>1</sup> One of the batik producers in Central Java is Pekalongan

<sup>1</sup> Rindia Fanny Kusumaningtyas. *Perlindungan Hak Cipta Atas Motif Batik Sebagai Warisan Budaya Bangsa (Studi Terhadap Karya Seni Batik Tradisional Kraton Surakarta)*. Tesis Universitas Diponegoro Semarang. Tahun 2006

Regency, known as the 'Batik City.' Almost fifty percent of its citizens are involved in the batik industry. The primary raw material for making batik is wax, commonly referred to as Malam. In addition to using wax or wax, batik is also colored using chemicals. The process of dying batik itself is not only once or twice to produce a good batik color, but also many production defects in the coloring process. That causes a large volume of waste from the former dye solution to be formed. The use of chemicals can prolong the batik process, and storing batik wax in any place creates splattered wax everywhere.<sup>2</sup> It causes problems and pollution for the environment around the batik production area.

Wastewater is the residue from a business and/or activity in the form of liquid. In the form of liquid, the volume of waste from the batik industry is increasingly unstoppable in the Wastewater Disposal Installation, which is the final disposal for batik waste so that the waste is processed and does not pollute the environment. In the end, batik industry waste is disposed of into rivers, resulting in polluted rivers even though rivers are a form of water resources needed for human life.<sup>3</sup>

The environment can survive in neutralizing itself back to its initial state if the waste is still within the limits of the environmental carrying capacity<sup>4</sup>. However, if the waste exceeds the environment's carrying capacity, environmental pollution will occur. Environmental pollution itself is the entry or inclusion of living things, substances, energy, and/or other components into the environment and/or changes in the environmental order by human activities or by natural processes so that the quality of the environment drops to a certain level, which causes the environment to become less or unable to survive—functioning again according to its designation<sup>5</sup>.

Physically, the rivers polluted by batik waste are dark brown in color due to the chemicals contained in chemical batik dyes and dyes in the batik production process. The chemicals used include Kostic Soda (NaOH), Soda Ash (Na<sub>2</sub>CO<sub>3</sub>), Baking Soda (NaHCO<sub>3</sub>), Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>), Sulfid, Nitrite, and Teepol, while the dyes used include acid dyes, alkaline dyes, direct dyes, reactive dyes, naphthol dyes, and vessel dyes<sup>6</sup>. Meanwhile, in sag activities, the resulting liquid waste contributes to an increase in wastewater's Biological Oxygen Demand (BOD).<sup>7</sup> BOD levels in a river can be identified as a water pollution parameter, where the higher the BOD, the more polluted the river water.<sup>8</sup> If wastewater is discharged into environmental media without being treated first, it can cause environmental pollution, especially in aquatic ecosystems. High temperatures will cause the dissolved oxygen content or Dissolved Oxygen (DO) in the water to decrease, which will kill organisms so that it disrupts the balance of the water ecosystem<sup>9</sup>.

One area with a high level of pollution is Simbang Kulon Village, Buaran District, Pekalongan Regency, which is the center of the batik industry. The impact of this industry is that it produces solid waste in the form of wax and liquid waste from bleaching drugs and batik cloth dyes which can cause pollution because the waste is dumped directly into the surrounding rivers.<sup>10</sup>

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<sup>2</sup> Ida Nurdalia. "Kajian Dan Analisis Peluang Penerapan Produksi Bersih Pada Usaha Kecil Batik Cap (Studi Kasus Pada Tiga Usaha Industri Kecil Batik Cap Di Pekalongan)" (Semarang: Universitas Diponegoro, 2006)

<sup>3</sup> Mutiara Fajar et.al.. *Analisis Peranan Ipal Dalam Strategi Penanganan Limbah Industri Batik Di Kota Pekalongan*". (Surakarta: Universitas Muhammadiyah Surakarta, 2019)

<sup>4</sup> Oktsfriani Jufri Sumampouw. "Indikator Pencemaran Lingkungan" (Yogyakarta: Deepublish, 2018), 1.

<sup>5</sup> Manik. *Pengelolaan Lingkungan Hidup*. (Penerbit: Kencana, 2016).

<sup>6</sup> M. Wawan Kurniawan et.al.. "Strategi Pengelolaan Air Limbah Sentra Umkm Batik Yang Berkelanjutan Di Kabupaten Sukoharjo" Dalam *Jurnal Ilmu Lingkungan Volume 11 Issue 2: 62 -72 (2013)*". Semarang: Universitas Diponegoro.

<sup>7</sup> Nani Apriyani. "Industri Batik: Kandungan Limbah Cair dan Metode Pengolahannya". *Media Ilmiah Teknik Lingkungan*. Vol. 3, No. 1. (2018): 22.

<sup>8</sup> Potjut Siti Sara, "Kajian Kualitas Air Di Sungai Ciliwung Dengan Parameter BOD Dan COD" . Jakarta: Universitas Trisakti

<sup>9</sup> M Wawan, *Op.Cit.*

<sup>10</sup> Muhammad Zammy et.al. "Analisis Dampak Limbah Buangan Limbah Pabrik Batik di Sungai Simbangkulon". *Walisongo Journal of Chemistry Vol. 1 No. 1.* (2018)

Therefore, law enforcement efforts are needed for those who still throw batik waste into the river and make the river polluted. The law enforcement effort is implementing Regional Regulation Number 5 of 2014 concerning Wastewater Management, which aims to realize environmentally sustainable development, maintain and maintain water quality, improve wastewater quality, and prevent impacts that can damage the environment and human health and living creatures. In other life, there is a need for regulation of wastewater management.

## II. Research Problems

1. How is law enforcement against river pollution due to batik industry waste in Simbang Kulon Village, Buaran District, Pekalongan Regency based on Pekalongan Regency Regulation Number -5 of 2014 concerning Wastewater Management?
2. What are the inhibiting factors in law enforcement efforts against river pollution due to batik industrial waste in Simbang Kulon Village, Buaran District, Pekalongan Regency?

## III. Research Methods

The method in this study uses a normative juridical research method or known as the doctrinal method, namely the law reviews or examines itself from the point of view of itself as a value system, as a conceptual system and as a positive legal system and even the possibility of discovering new legal principles, theories new legal theory.<sup>11</sup> The data's specification is descriptive research, which aims to describe (describe) a problem in a specific area or at a particular time. Researchers try to reveal the complete facts and what they are in examining the status of a group of people, an object, a set of conditions, a system of thought, or a class of events in its time.<sup>12</sup> This research is based on secondary and primary data where several primary data are obtained indirectly from the source (object of research) but through libraries, including books, articles, documents, and the internet related to the object of research and legal materials. Primary materials are binding legal materials, including laws, statutory regulations, regional regulations, etc. Sources of data in this study are primary data and identification and clarification of legal facts. In order to support research activities, data was collected by identifying and clarifying legal facts with resource persons. The location of this research was carried out at the Purwokerto Muhammadiyah University Library, the Purwokerto Muhammadiyah University Faculty of Law Library, the Pekalongan Regency Regional Library, and the Pekalongan Regency Settlement and Environment Service (Perkim and LH).

## IV. Research Results And Discussion

1. **Law enforcement against river pollution due to batik industry waste in Simbang Kulon Village, Buaran District, Pekalongan Regency based on Pekalongan Regency Regulation Number 5 of 2014 concerning Wastewater Management**

Based on Satjipto Raharjo's opinion, law enforcement is not a definite action, namely applying the law to an event, which can be likened to drawing a straight line between two points.<sup>13</sup>

If viewed based on the object, law enforcement is divided into two points of view: enforcement in a broad sense and enforcement in a narrow sense. Law enforcement in a broad sense means that the law enforcement process involves all legal subjects in every legal relationship. Meanwhile, law enforcement is an effort made by law enforcement officials to

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<sup>11</sup> Nurul Qamar et.al. *Metode Penelitian Hukum (Legal Research Methods)*. (CV Social Politic genius, 2017), 6.

<sup>12</sup> Suteki and Galang Taufan. *Metode Penelitian Hukum (Filsafat, Teori, dan Praktik)*. (Depok: Rajawali Pres, 2018), 133.

<sup>13</sup> Satjipto Raharjo. *Sosiologi Hukum: Perkembangan Metode Dan Pilihan Masalah* (Yogyakarta: Sinar Grafika, 2002), 190.

guarantee and ensure that a rule runs appropriately based on a narrow meaning. Law enforcement officers can use coercive measures in their enforcement efforts if necessary.

From this description, what is meant by law enforcement is an effort made to make law, either in a narrow sense or in a broad sense, to ensure legal norms function and apply in social life. In the modern state structure, the task of law enforcement is carried out by the judicial component and the bureaucracy, so it is often called the law enforcement bureaucracy. The executive and its bureaucracy are part of the chain to realize the plans stated in the law (regulations). Judicial freedom is the essence of a state of law that has now been realized where judicial power is independent, free from the influence of executive, legislative, and judicial elements that determine the state's life and whether or not the principle of the Rule of Law is enforced.<sup>14</sup> One of the existing law enforcement efforts in the community is a Regional Regulation formed by the Provincial Regional People's Representative Council with the mutual consent of the Regional Head (governor). Meanwhile, at Level II or the regional level, it is formed by the Level II Regional People's Representative Council and the Regent/Mayor.

In Pekalongan Regency, to realize sustainable environmentally sound development, maintain and maintain water quality, improve wastewater quality, and prevent impacts that can damage the environment, human health, and other living creatures, Pekalongan Regency Regulation Number 5 of 2014 concerning Management Wastewater.

Based on Article 1, paragraph 8 of the Regional Regulation of Pekalongan Regency Number 5 of 2014 concerning Wastewater Management, "Wastewater is the residue from a business and/or activity in liquid form." A wastewater disposal system is a mandatory thing those business actors must own to treat wastewater under environmental quality standards. Wastewater management itself, based on Article 2 of the Regional Regulation of Pekalongan Regency Number 5 of 2014 concerning Wastewater Management, aims to:

- a. controlling wastewater disposal;
- b. maintain, protect, and maintain the quality of groundwater and surface water so that they can function according to their designation;
- c. realize the achievement of wastewater quality that meets quality standards, and;
- d. increase efforts to preserve environmental functions in supporting environmentally sustainable development.

In wastewater management, everyone who produces wastewater is obliged to manage wastewater. Wastewater management for industrial activities is required to have a Wastewater Treatment Plant (WWTP). Based on Article 14 of the Regional Regulation of Pekalongan Regency Number 5 of 2014 concerning Wastewater Management, it is stated that every business actor and/or industrial activity that produces and disposes of industrial wastewater is required to have a WWTP to treat wastewater under quality standards. In addition, business actors are also prohibited from conducting dilutions to reduce the concentration of toxic substances and the dangers of wastewater.

If a violation is found in the supervision, the sanctions based on the regulation need to be applied. Sanctions are divided into three parts, namely administrative sanctions, compensation for losses, and criminal sanctions. The Regent applies administrative sanctions to the person in charge of the business and/or activity if it is found that an environmental violation permit is found during the supervision. The administrative sanctions consist of written warnings, government coercion, freezing of environmental permits, and revocation of environmental permits. The administrative sanction received does not relieve the person in charge of the business and/or business activity from the responsibility for recovery and punishment so that the responsibility is still carried out.

The imposition of sanctions on the freezing of environmental permits and revocation of environmental permits will be carried out if the person in charge of the business and/or activity does not impose government coercion. The government's coercion is in the form of :

- a. temporary cessation of production activities;
- b. transfer of production facilities;

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<sup>14</sup> Sanyoto. "Penegakan Hukum di Indonesia". *Jurnal Dinamika Hukum* Vol. 8 No. 3. (2008)

- c. closure of sewerage;
- d. demolition;
- e. confiscation of goods or equipment that has the potential to cause violations;
- f. temporary suspension of all activities; or
- g. other actions aimed at stopping violations and restoring environmental functions.

The government imposition coercion can be imposed without warning if the violation that has been committed poses a severe threat to humans and the environment; have a broader impact if the pollution and/or destruction is not immediately stopped; and/or a more significant loss to the environment if the pollution and/or destruction is not immediately stopped because pollution due to industrial waste passing through the waters around the settlement can reduce the environmental quality where the residents live.<sup>15</sup>

In the case of compensation for losses, the person in charge of the business and/or activity who violates the law should pay compensation and/or take specific actions under the applicable laws and regulations. Activities that violate the law can be in the form of pollution and/or environmental destruction due to wastewater management which causes harm to people or the environment.

While the threat of criminal sanctions in Article 38 of the Regional Regulation is a maximum imprisonment of 6 (six) months or a maximum fine of Rp. 50,000,000.- (fifty million rupiahs), and if the person or entity's actions result in pollution and/or environmental damage, they shall be subject to criminal sanctions as regulated in the applicable laws and regulations.

Several efforts have been made by the Pekalongan Regency Government so that law enforcement is under the Pekalongan Regency Regional Regulation Number 5 of 2014 concerning Wastewater Management, including:

- a. Guidance and Socialization for Batik Entrepreneurs
- b. Education for entrepreneurs to treat waste first before being dumped into the river under Article 14 paragraph (1) Perda Pekalongan Regency Number 5 of 2014 concerning Wastewater Management
- c. Making Integrated WWTPs in stages

The community around Simbang Kulon Village ignored these efforts because it was considered a breeze. Even though the condition of the river in Simbang Kulon Village, Buaran District, Pekalongan Regency has been polluted by industrial waste, it is dark black in color and causes an unpleasant and inappropriate odor. With Water Quality Standards. Regarding the sanctions imposed on entrepreneurs who cause industrial waste pollution in the Simbang Kulon Village River, there has been no firm action from Simbang Kulon Village as stated in the Pekalongan Regency Regional Regulation Number 5 of 2014 concerning Wastewater Management. Because of this, the Pekalongan Regency Government faces many obstacles in enforcing the law against river pollution due to batik industry waste.

## **2. Inhibiting factors in law enforcement efforts against river pollution due to batik industry waste in Simbang Kulon Village, Buaran District, Pekalongan Regency**

In carrying out law enforcement, several obstacles occur in the surrounding community, and these obstacles have a significant impact on the Pekalongan Regency Settlement and Environment Office in fixing river pollut

ion due to batik industry waste. The obstacles experienced in law enforcement against river pollution due to batik industry waste are as follows:

- a. Lack of public awareness of the importance of the function of the river as a source of life
- b. Lack of responsibility of entrepreneurs in the disposal of batik industry waste

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<sup>15</sup> Budiyanto, Slamet et al.. "Environmental Analysis of The Impacts of Batik Wastewater Polution on The Quality of Dug Well Water in The Batik Industrial Center of Jenggot Pekalongan City". E3S Web of Confernces 31, 09008 (2018). <https://doi.org/10.1051/e3sconf/20183109008> (2017)

- c. Enforcement of sanctions is the authority of the Pekalongan Regency Government so that the Perkim and LH Offices cannot run alone in enforcing administrative sanctions, criminal sanctions, and compensation for losses.
- d. The lack of public complaints regarding river pollution due to batik industry waste is because most of the people of Simbang Kulon Village depend on the batik industry for their lives, so they often ignore river pollution due to batik industry waste. That means that the victim is also the perpetrator of the pollution.
- e. Lack of budget from the Pekalongan Regency Government
- f. Limited human resources so that several large programs that require the involvement of many parties are not running optimally.
- g. The maintenance of the IPAL provided by the Pekalongan Regency Government is handed over to the association, which is a legal entity. However, in its implementation, the association is not responsible until the deadline given by the Pekalongan Regency Regional Government.
- h. The condition of the WWTP is not maintained, thus making the WWTP lose its function as a wastewater disposal
- i. Several entrepreneurs do not report their type of business to Simbang Kulon Village, thus making the amount of waste per liter per day not monitored by Simbang Village.
- j. There is no tightening of licensing for business actors in Simbang Kulon Village.
- k. Small factory entrepreneurs or home industries still lack awareness in making independent WWTPs, so they still throw the waste into ditches that flow directly into rivers.

The latest data recorded at the Simbang Kulon Village Office in 2019 193 entrepreneurs generated waste in Simbang Kulon Village, namely 98 batik printing production, 46 stamped batik production, 11 screen printing production, one mori production, one keliran production, three convection, six production abstract, two loyor/bleaching services, two jeans production, one patchwork production, one batik washing, three tempe production, and 18 productions did not report the type of production. The waste generators in Simbang Kulon Village are located in RW 2 to RW 10, Simbang Kulon Village, which are spread over several RTs. The daily waste discharge issued by the production varies from 0.02 m<sup>3</sup>/day to 45.00 m<sup>3</sup>/day or around 19.50 liters/day to 45,000 liters/day.

In addition, there are still many inhibiting factors from the community side. Zaklul Khafizhin, one of the Section Heads at the Pekalongan Regency Public Housing and Settlement Areas Office (Perkim and LH), explained that the condition of rivers and ditches in Simbang Kulon Village is far from being under the Water Quality Standards contained in the Minister of Health Regulation No. . 32 of 2017 concerning Environmental Health Quality Standards and Water Health Requirements for Sanitary Hygiene, Swimming Pools, Solus Per Aqua, and Public Baths.

Many parties support river cleaning and structuring the Simbang Kulon Village area with programs that build the Simbang Kulon Village area into an environmentally friendly batik village destination. One of them is the City Without Slums Program (*Kota Tanpa Kumuh*, KOTAKU) and Land Acquisition and Resettlement Action Plan (LARAP).

## **V. Conclusions**

Law enforcement efforts in river pollution due to batik industry waste in Simbang Kulon Village, Buaran District, Pekalongan Regency are Administrative Sanctions, namely a warning from the Perkim and LH Office of Pekalongan Regency. That is not in line with Article 14 of the Regional Regulation of Pekalongan Regency Number 5 of 2014 concerning

Wastewater Management, "Every business actor and/or industrial activity that produces and disposes of industrial wastewater are required to have a WWTP to treat wastewater under quality standards." That is because the condition of the river in Simbang Kulon Village, Buaran District, Pekalongan Regency has been polluted to a deep black color and the water conditions are not under the Water Quality Standards.

The inhibiting factors in law enforcement efforts against river pollution in Simbang Kulon include:

- a. Lack of public awareness of the importance of river functions.
- b. Lack of responsibility of entrepreneurs in the disposal of batik industry waste
- c. The Perkim and LH offices cannot run alone in enforcing administrative sanctions, criminal sanctions, and compensation for losses.
- d. The lack of public complaints regarding river pollution due to batik industry waste because the victim is also the perpetrator of the pollution.
- e. Lack of budget from the Pekalongan Regency Government
- f. Limited human resources so that some large programs are not running optimally.
- g. The maintenance of the WWTP provided by the Pekalongan Regency Government is handed over to the association, which is a legal entity. However, in its implementation, the association is not responsible until the deadline given by the Pekalongan Regency Regional Government.
- h. The condition of the WWTP is not maintained, thus making the WWTP lose its function as a wastewater disposal
- i. Several entrepreneurs do not report their type of business to Simbang Kulon Village.
- j. There is no tightening of licensing for business actors in Simbang Kulon Village.
- k. Small factory entrepreneurs or home industries still lack awareness in making independent WWTPs, so they still throw the waste into ditches that directly flow into the river and pollute the environment around the river in Simbang Kulon Village Buaran District, Pekalongan Regency, which causes river water to overflow. Simbang Kulon Village is not under the Water Quality Standards.

## VI. Suggestions

Suggestions from this research need to make further efforts from the government in enforcing legal protection and take firm action against perpetrators who dispose of batik industrial waste in the river Simbang Kulon Village by revoking environmental permits. It is expected to minimize the presence of irresponsible business actors disposing of industrial waste to the river without processing it first. The permit revocation is contained in Article 36 paragraph (4) of the Regional Regulation of Pekalongan Regency Number 5 of 2015 concerning Wastewater Management.

The solutions that can reduce obstacles in law enforcement against river pollution due to batik industry waste are as follows:

- a. Due to the lack of public awareness of the importance of the function of the river as a source of human life and living beings, it is necessary to hold socialization regarding the function of the river for human life and living creatures.
- b. Increase the understanding of entrepreneurs regarding the disposal of industrial waste for entrepreneurs who are less responsible for the disposal of batik industry waste
- c. Give authority to the Department of Perkim and LH in enforcing sanctions for perpetrators of river pollution due to industrial waste
- d. Public complaints or victims are needed regarding perpetrators of river pollution due to industrial waste so that enforcement can be carried out under applicable regulations, in this case, Pekalongan Regency Regional Regulation Number 5 of 2015 concerning Wastewater Management

- e. The Pekalongan Regency Government needs to increase the budget to handle river pollution due to industrial waste so that Simbang Kulon village becomes an environmentally friendly industrial village.
- f. Adding human resources so that large programs that require the involvement of many parties run optimally.
- g. Application of sanctions for associations that do not carry out their obligations in the maintenance of WWTPs provided by the Pekalongan Regency Regional Government
- h. The need for WWTP treatment so that its function as wastewater disposal runs properly
- i. For entrepreneurs who do not report their type of business to Simbang Kulon Village, so that the amount of waste per liter per day is not monitored by Simbang Village, then the entrepreneur will be penalized, and if the type of business harms the community and/or the environment, then a business license will be issued. given can be revoked
- j. Tightening of licensing for business actors in Simbang Kulon Village needs to be held, considering that Simbang Kulon Village is one of the areas with a high level of pollution due to batik industry waste.
- k. For small factory entrepreneurs or home industries that do not yet have an independent WWTP, it is hoped that they can take advantage of the WWTP that the Pekalongan Regency Government has built. It is intended so that entrepreneurs can dispose of their industrial waste into waste disposal and do not dispose of industrial waste into sewers before the waste is disposed of processed.

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