

INTISARI

Pencemaran perairan terjadi apabila badan air telah terkontaminasi oleh suatu substansi yang bersifat organik, anorganik, maupun biologis yang dapat menurunkan kualitas serta fungsi air. Desa Manjung terkenal sebagai sentra industri mie soun terbesar di Kabupaten Klaten dengan rata-rata produksi oleh tiap pengusahanya mencapai 70 kg/hari. Sentra industri mie soun di Desa Manjung sangat berpotensi menimbulkan kasus pencemaran perairan yang disebabkan oleh pembuangan air limbah dari kegiatan produksi mie soun langsung menuju saluran irigasi tanpa melalui instalasi pengolahan air limbah, kemudian aliran irigasi setempat akan mengalir menuju sungai terdekat melalui pengairan sawah maupun ladang. Diketahui perkiraan rata-rata volume air limbah yang dihasilkan dari tiap rumah produksi mie soun di Desa Manjung yaitu sebesar 1,8 m³/hari yang tergolong cukup tinggi. Oleh karena itu perlu penelitian ini bertujuan untuk: (1) mengidentifikasi karakteristik kualitas air limbah industri mie soun, air saluran irigasi primer, dan air Kali Klaten; (2) menganalisis status mutu air pada saluran irigasi primer dan Kali Klaten; (3) menganalisis dampak limbah industri mie soun terhadap lingkungan sosial; (4) merumuskan strategi pengendalian pencemaran perairan akibat limbah industri mie soun. Hasil penelitian menunjukkan bahwa air limbah industri mie soun cenderung mengandung zat organik yang hanya mengkontaminasi aliran saluran irigasi primer yang ditandai dengan rendahnya nilai konsentrasi DO yang mengakibatkan tingginya nilai konsentrasi BOD. Status mutu air pada saluran irigasi primer dan Kali Klaten masing-masing menunjukkan kategori sedang dengan total nilai IKA masih dalam kisaran $70 < 1 \geq 51$. Merujuk dari persepsi masyarakat desa, tingkat gangguan yang dirasakan masyarakat akibat air limbah industri mie soun tergolong cukup mengganggu. Demikian program prioritas dalam strategi pengendalian pencemaran perairan akibat limbah industri mie soun di Desa Manjung secara urut meliputi pembangunan sarana IPAL industri terpadu, pemantauan kualitas perairan dan air limbah, pembentukan komunitas peduli sungai, serta penyelenggaraan lisensi pengolahan air limbah.

Kata Kunci: Industri Mie Soun, Air Limbah, Irigasi Primer, Kali Klaten, Kualitas Air.

ABSTRACT

Water pollution occurs when the water body has been contaminated by organic, inorganic, or biological substances that can affect the quality and function of water. Manjung Village is known as the biggest soun noodle industrial center in Klaten Regency with average production reaching 70 kg/day by each local craftsman. Soun noodle industrial center in Manjung Village potentially causes water pollution due to wastewater from soun noodle production activities that directly discharged into irrigation channels without going through the wastewater treatment plant first, these irrigation channels would flow towards the nearest river through the rice field irrigation around there. The estimated average volume of wastewater produced from each soun noodle production house in Manjung Village is 1,8 m³/day which is categorized as quite high. This research aims to: (1) Identifying water quality characteristics of soun noodle industrial wastewater, primary irrigation channel, and Klaten River; (2) Analyzing water quality status on primary irrigation channel and Klaten River; (3) Analyzing the impact of soun noodle industrial waste on social environment; (4) Forming the water pollution control strategy due to soun noodle industrial waste. The result of this research showed that soun noodle industrial wastewater tends to contain organic substances and also only contaminates the flow of primary irrigation channel, which is proven by the lower DO concentration value and highest BOD concentration value. Water quality status on primary irrigation channel and Klaten River for both are categorized as moderate with total IKA value still in the range of $70 < 1 \geq 51$. Based on the perception of village community, the level of disturbance that has felt by village community due to soun noodle industrial waste is categorized as quite disturbing. The order of priority programs for water pollution control strategy due to soun noodle industrial waste in Manjung Village includes constructing an integrated industrial wastewater treatment plant, monitoring water and wastewater quality, forming a river care community, and implementing wastewater treatment licenses.

Keywords: Soun Noodle Industrial, Wastewater, Primary Irrigation, Klaten River, Water Quality.