

# **Ecological Impact Report**

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## **1. Simulation Parameters**

- DO Consumption Rate: 0.07
- Reaeration Rate: 0.4
- Oil Dampening: 0.2
- Zooplankton LC50: 30.0 mg/L

## **2. Key Ecological Metrics**

Avg Recovery Index: 0.570 (Critical)

Plankton Survival: 82.0%

Toxic Area (LC50): 0.0%

Min Dissolved Oxygen: 0.00 mg/L

Most Impacted Zone: (38, 31)

## **3. Prediction Accuracy**

SSIM: 0.6195

MSE: 0.002036

PSNR: 26.91 dB

## **4. Analysis Summary**

The simulation predicts a maximum oil concentration of 0.0996. The ecological recovery index indicates the overall health of the ecosystem is at 0.57.

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## 5. Visual Maps

