

Trash Hub Ventures

Status Report

Assignment 2: Status Report

INFO8686 – Information
Technology Business Analysis
Capstone Project
Section 7
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Executive Summary

The Advanced Waste Management System Enhancement project is progressing well, and we are excited to update our esteemed client on the project's status. This report provides an overview of the project's current state, the desired future state, and the strategic plans moving forward. Additionally, figures and tables have been included to summarize the analyzed data supporting our project recommendations concisely.



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Current Project Status

Preliminary Results

Current State

The project is being implemented, integrating hazardous waste disposal and introducing advanced technologies such as smart bins, RFID tracking, and AI-based route optimization. The team has successfully navigated the initial phases, incorporating a hybrid methodology for effective planning and agile implementation.

Desired Future State

We aim to establish a state-of-the-art waste management system in the Kitchener-Waterloo region, seamlessly handling non-hazardous and hazardous waste. The future state envisions enhanced operational efficiency, cost-effectiveness, and a positive environmental impact.

Gap Analysis

While significant progress has been made, a gap remains between the current state and the desired future state. This gap represents the ongoing efforts required to fully realize the benefits of the new waste management system, ensure optimal utilization of advanced technologies, and achieve the outlined objectives.

Expected state : Next-Gen Strategies and Innovation



Figure 1: Expected future State Process after Implementation of advanced technology

Financial Overview

| Cost Category | Current State (\$) | Future State (\$) | Benefits (%) |
|------------------------------------|--------------------|-------------------|---------------------|
| Operating Expenses (Non-Hazardous) | \$4,505,720.00 | \$4,740,060.00 | 6% Revenue Increase |
| Operating Expenses (Hazardous) | - | \$5,745,000.00 | 8% Revenue Increase |

(Waste Connections, 2023, p. 1)

Table 1: Operating Expenses

Current Operating expenses Non Hazardous Waste Disposal

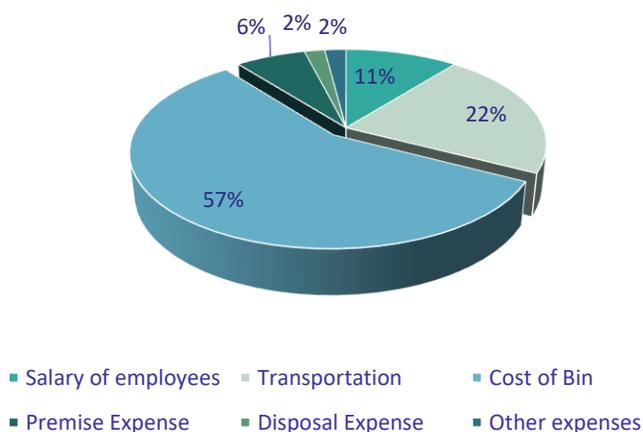


Figure 2: Current Operating Expenses for Non-Hazardous Waste Disposal

Expected Cost of Non Hazardous Waste Disposal with New Updates

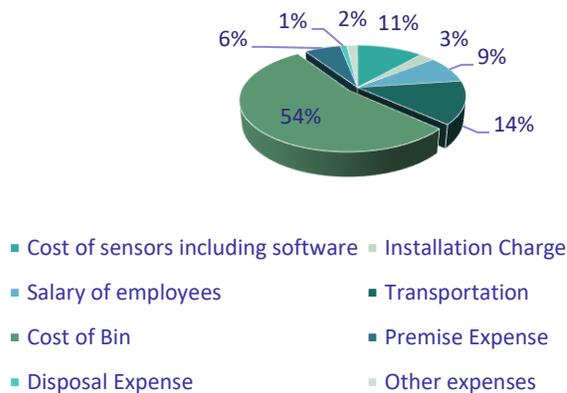


Figure 3: Expected cost for Non-Hazardous Waste Disposal with New Updates

Operating Expenses Hazardous Waste Disposal

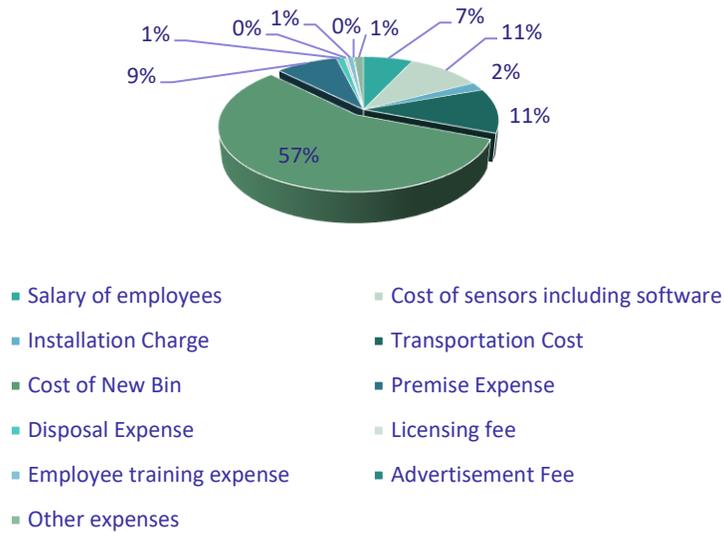


Figure 4: Operating Expenses for Hazardous Waste Disposal

Benefits Summary

Manual System vs. Enhanced System Benefits



Figure 5: Benefits Summary



| Benefits | Percentage Reduction/Increase |
|--|-------------------------------|
| Reduction of Salary Expenses | 14.8% |
| Automation of Waste Scheduling | 80% |
| Reduction of Transportation Expenses | 34.1% |
| Reduction of Disposal Expenses | 37.8% |
| Increase in Annual Revenue (Non-Hazardous) | 6% |
| Increase in Annual Revenue (Hazardous) | 8% |

Table 2: Benefits Summary after new updates

Strategic Plans: Moving Forward

- **Operational Refinement:** Continue fine-tuning the implementation of new technologies, ensuring they align with project goals and maximize operational efficiency.
- **Stakeholder Collaboration:** Foster ongoing collaboration with key stakeholders to gather feedback, address concerns, and ensure the project meets client expectations.
- **Transparency and Reporting:** Maintain a transparent reporting mechanism to inform the client about project progress, challenges, and achievements. Regular status updates and financial reports will be provided to ensure a clear understanding of the project's trajectory.
- **Risk Mitigation:** Proactively identify and address potential risks impacting project timelines or outcomes. Implement mitigation strategies to minimize the impact of unforeseen challenges.

Next Steps

The project will continue to focus on efficiently implementing new technologies, ensuring cost-effectiveness, and maximizing revenue growth. The team is committed to maintaining transparency through regular updates and financial reports to stakeholders. Ongoing collaboration and adaptability to emerging challenges remain key priorities.

- Expand smart bin installations to cover 60% of the designated areas.
- Complete RFID integration and commence full-scale tracking testing.
- Roll out the AI-based route optimization software to all collection vehicles.

Conclusion

In conclusion, the Advanced Waste Management System Enhancement project is on track to deliver a state-of-the-art solution that addresses current challenges in waste management. The ongoing collaboration between the project team and the client will play a pivotal role in achieving the desired future state. We remain dedicated to transparency, innovation, and the successful realization of project goals.

References

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- Waste Connections. (2023, Oct 25). *WASTE CONNECTIONS REPORTS THIRD QUARTER 2023 RESULTS*. CISION. <https://www.newswire.ca/news-releases/waste-connections-reports-third-quarter-2023-results-849547965.html>



Appendix A

Figure 1: Expected future State Process after Implementation of Advanced Technology

Table 1: Operating Expenses

Figure 2: Current Operating Expenses for Non-Hazardous Waste Disposal

Figure 3: Expected cost for Non-Hazardous Waste Disposal with New Updates

Figure 4: Operating Expenses for Hazardous Waste Disposal

Figure 5: Benefits Summary

Table 2: Benefits Summary after new updates