Inception Report

Online DENR Environmental Laboratory Recognition System Phase II

Submitted To:

Environmental Management Bureau
DENR Compound, Visayas Ave
BRGY. Vasra, Quezon City

Submitted By:

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JACQUELINE A. CAANCAN
Director
Environmental Management Bureau (EMB)
Department of Environment and Natural Resources
DENR Compound, Visayas Avenue
Diliman, Quezon City 1116

Attention: **Ma. Fatima Anneglo R. Molina, RCh**
Chief, Environmental Research and Laboratory Services Division (ERLSD)

Subject: Online DENR Environmental Laboratory Recognition System (ODELRS) Phase II

Dear Dir. Caancan:

We are pleased to submit the Inception Report for the Consultancy for the Online DENR Environmental Laboratory Recognition System (ODELRS) Phase II: Enhancement, Beta Testing, Consultations, and Implementation.

This report outlines the project background, objectives, and the detailed work plan discussed during the kick-off meeting. It highlights our approach to conducting beta testing, training sessions, and consultations, as well as integrating feedback to ensure the system meets all specified requirements for deployment. These activities are critical to ensuring the system's optimal functionality and successful implementation.

Should you have any questions or require further clarification, please don't hesitate to reach out.

Sincerely,

acafurong

AMIEL CHRYSDIN L. AFURONG
Owner

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1. INTRODUCTION

We are pleased to submit this inception report for the Online DENR Environmental Laboratory Recognition System (ODELRS) Phase II and the National Research and Development Program for the Prevention and Control of Water Pollution (NRDP-PCWP) (hereafter referred to as the "Project"). This report provides an overview of the project background and outlines the work plan discussed during the kick-off meeting.

The report highlights our strategy for engaging stakeholders through consultations with relevant groups, including EMB divisions, assessors, and advisory teams. It also details our approach to beta testing, system design finalization, and the integration of feedback to ensure the successful implementation of system enhancements. By aligning these efforts with the project's objectives, we aim to deliver a robust system that meets all operational and deployment requirements.

2. BACKGROUND OF THE PROJECT

The Online DENR Environmental Laboratory Recognition System (ODELRS) was developed to digitize and streamline the processes involved in recognizing environmental laboratories under the DENR's jurisdiction. This system facilitates the submission, evaluation, and approval of laboratory recognition applications, ensuring greater efficiency and transparency in compliance with DENR policies and regulations.

Additionally, the National Research and Development Program for the Prevention and Control of Water Pollution (NRDP-PCWP) serves as a critical initiative to support the DENR's commitment to safeguarding water resources. This program integrates research and monitoring activities to prevent and mitigate water pollution, leveraging data-driven strategies and technologies.

Following the successful implementation of the initial phases of ODELRS, consultations with EMB Regional Offices, laboratory assessors, and stakeholders identified areas for further improvement. Phase II of the project was initiated to address this feedback, enhance system functionalities, and integrate the NRDP-PCWP database to support comprehensive water pollution prevention efforts.

This phase will focus on engaging stakeholders through consultations, finalizing system enhancements based on feedback, conducting beta testing, and ensuring seamless integration with existing EMB systems. Comprehensive training and documentation will also be developed to support the deployment and long-term use of these systems.

3. OBJECTIVE OF THE PROJECT

Building on the achievements of the initial phase, Phase II of the Online DENR Environmental Laboratory Recognition System (ODELRS) and the National Research and Development Program for the Prevention and Control of Water Pollution (NRDP-PCWP) is focused on refining and enhancing the systems' functionalities.

This phase aims to gather valuable insights through continuous consultations with key stakeholders, including EMB Regional Offices, laboratory assessors, the Office of the DENR Secretary, and the Technical Advisory Group for Laboratory Recognition (TAG-LR). By addressing the feedback and recommendations collected during the initial phase, Phase II will implement updates and improvements that align with evolving requirements and regulatory standards.

The ultimate goal is to enhance user experience, streamline laboratory recognition processes, integrate water pollution prevention efforts, and ensure the systems' efficiency, reliability, and compliance with DENR mandates prior to full-scale deployment.

4. METHODOLOGY

For Phase II of the *Online DENR Environmental Laboratory Recognition System (ODELRS)* and the *National Research and Development Program for the Prevention and Control of Water Pollution (NRDP-PCWP)* project, we will adopt an iterative waterfall approach as the primary methodology. This structured yet flexible approach ensures that each phase of development is refined through multiple iterations, incorporating stakeholder feedback and thorough testing.

Each iteration will follow the sequence below:
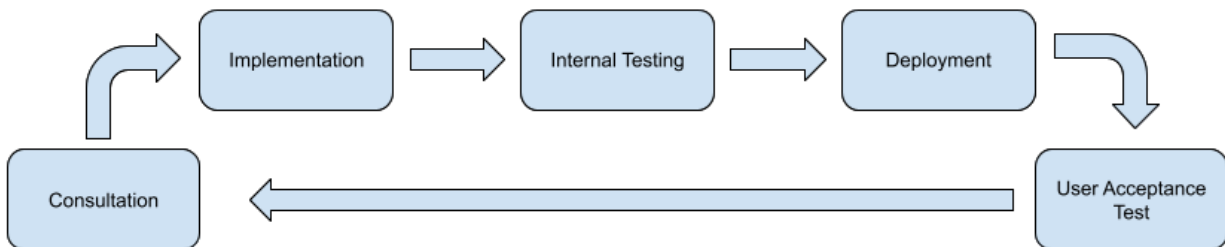
1. **Consultation and Feedback Gathering**

   During each iteration, consultations will be conducted with key stakeholders, including EMB Regional Offices, laboratory assessors, the Office of the DENR Secretary, and the Technical Advisory Group for Laboratory Recognition (TAG-LR). These sessions will focus on gathering feedback regarding system functionalities, usability, and integration with existing EMB databases. The consultations will also review the NRDP-PCWP database design to ensure alignment with regulatory requirements and stakeholder needs.

2. **Implementation of Updates**

   Based on the feedback from the consultation phase, necessary updates and enhancements will be implemented. This may include modifying existing features, integrating new functionalities for ODELRS and NRDP-PCWP, and addressing any identified gaps or issues. The improvements aim to enhance the overall efficiency, usability, and compliance of both systems.

3. **Internal Testing**

Following the implementation of updates, the project team will conduct internal testing to validate the changes. This includes functional, performance, and security testing to ensure that all new developments meet predefined standards. Testing will also verify the seamless integration of both systems with existing EMB platforms and databases.

4. **Deployment**

Upon successful completion of internal testing, the updated version of the systems will be deployed in a controlled environment. Deployment will be carefully coordinated with EMB teams to minimize disruptions and ensure a smooth transition for users.

5. **User Acceptance Testing (UAT)**

After deployment, user acceptance testing (UAT) will be conducted with selected stakeholders, including EMB personnel and laboratory assessors. This phase provides an opportunity for users to evaluate the systems under real-world conditions, assessing performance, usability, and functionality. Feedback collected during UAT will be used to refine the systems further.

6. **Iteration and Optimization**

This iterative process will continue until all features and functionalities have been fully optimized, and both ODELRS and NRDP-PCWP have been validated by users. The goal is to ensure that the systems are reliable, efficient, and ready for full deployment and long-term use, supporting DENR's objectives for environmental protection and water pollution prevention.

This iterative process will be repeated until all features have been optimized, the system has been fully validated by users, and the necessary refinements have been made to ensure that ORATA is ready for full deployment and long-term use.

3.1 CONSULTATION

Consultation meetings with the EMB Central Office, EMB Regional Offices, and key stakeholders, including laboratory assessors, the Office of the DENR Secretary, and the Technical Advisory Group for Laboratory Recognition (TAG-LR), are integral to gathering valuable feedback for the enhancement of the *Online DENR Environmental Laboratory*

Recognition System (ODELRS) and the *National Research and Development Program for the Prevention and Control of Water Pollution (NRDP-PCWP)* database. These consultations aim to ensure that the systems address all operational scenarios and meet user needs before their official deployment.

During each consultation, our development team will present the current progress of ODELRS and NRDP-PCWP, including live demonstrations of their functionalities and features. These demonstrations are tailored to align with the specific requirements of stakeholders, providing an opportunity to interact with the systems and assess their performance in practical applications. Participants will be encouraged to provide detailed feedback on usability, functionality, and potential areas for improvement.

To further support user engagement, participants will have the opportunity to explore the systems hands-on, allowing them to become familiar with their interfaces and workflows. This familiarity will ease the transition to live deployment, ensuring users are confident and prepared to utilize the systems effectively.

Following each consultation, the project team will conduct an internal review to analyze and prioritize the feedback. This process will identify which recommendations can be immediately implemented and which may require further consideration or inclusion in future updates.

As part of our deliverables, a comprehensive report will be prepared. This report will include the minutes of each consultation, a summary of feedback collected, and a detailed action plan outlining the timeline for implementing updates and enhancements. The report will be submitted to DENR-EMB, ensuring transparency, accountability, and alignment with the project's objectives throughout the development process.

3.2 IMPLEMENTATION

We will prioritize implementing the feedback gathered during the consultations, ensuring that the enhancements to the *Online DENR Environmental Laboratory Recognition System (ODELRS)* and the *National Research and Development Program for the Prevention and Control of Water Pollution (NRDP-PCWP)* database seamlessly integrate with their existing functionalities.

To maintain the stability and reliability of the systems, our team will conduct a series of smoke testing sessions. These tests will verify that no existing features are negatively impacted or broken by the newly implemented updates, ensuring the systems' overall performance and functionality remain intact as improvements are introduced.

3.3   INTERNAL TESTING

Internal testing will be conducted by Daedalus IT Solutions in collaboration with the EMB Central Office to ensure that the Online DENR Environmental Laboratory Recognition System (ODELRS) and the National Research and Development Program for the Prevention and Control of Water Pollution (NRDP-PCWP) database perform as expected. This phase will also validate that the feedback gathered during consultations has been effectively addressed in the implemented updates.

Any issues or errors identified during this phase will be meticulously documented and resolved prior to progressing to the next phase. This process ensures the systems' stability, reliability, and readiness for further testing or deployment.

3.4   DEPLOYMENT

We will deploy all updates to the EMB server, as previously practiced, to make the Online DENR Environmental Laboratory Recognition System (ODELRS) and the National Research and Development Program for the Prevention and Control of Water Pollution (NRDP-PCWP) database available for further evaluation during the user acceptance phase.

During this deployment phase, we will conduct a series of integration tests to ensure that all system components, including new enhancements and existing functionalities, work together seamlessly. Any issues related to server performance or system integration will be thoroughly documented and resolved before advancing to the next phase of our methodology, ensuring a smooth and efficient user experience.

3.5   USER ACCEPTANCE TEST

This final phase of our iteration focuses on ensuring that the Online DENR Environmental Laboratory Recognition System (ODELRS) and the National Research and Development Program for the Prevention and Control of Water Pollution (NRDP-PCWP) database meet the specified requirements and function correctly from the end users' perspective. This phase is critical before the systems are fully deployed, as it involves actual users or their representatives interacting with the systems to validate their functionality, usability, and overall acceptability.

We have established a comprehensive set of test cases in our Beta Testing Work Plan, which will ensure that all system functionalities are tested and evaluated. This includes assessing ease of use, loading times, and verifying that each functionality meets the established requirements.

Daedalus will provide a detailed report on the outcomes of the User Acceptance Testing (UAT) for all iterations, ensuring that the systems are continuously improved and that all reported issues are effectively addressed before the final deployment.

4. DELIVERABLES

1. Working web-based applications of the Online DENR Environmental Laboratory Recognition System (Phase II) and the NRDP-PCWP database;
2. Technical documents, which include but are not limited to process flow diagram, database model (Diagram), data languages, list of important credentials, application setup, and basic troubleshooting procedures shall be turned over to EMB-SISMS and ERLSD.
3. Software components, which include but are not limited to User-interface/User-experience (UI/UX) components, client-side codes, server-side codes, and other resources used in the design/development of the systems shall be turned over to EMB-Statistics and Information Systems Management Section (SISMS) and Environmental Research and Laboratory Services Division (ERLSD);
4. Training of key personnel based on "train-the-trainers" approach. The training shall consist of the following:
5. Users' Training and
6. Technical Training
7. Warranty/Technical Support for six (6) months.

5. SCOPE OF WORK

A. Design and Rebuild the Online DENR Environmental Laboratory Recognition System (ODELRS) Phase II and National Research and Development Program for the Prevention and Control of Water Pollution (NRDP – PCWP)

B. Consultations
   ● Facilitate a series of consultations with relevant groups/individuals, including but not limited to concerned EMB Divisions/Sections, EMB assessors, external assessors,

Office of the DENR Secretary, and Technical Advisory Group for Laboratory Recognition (TAG-LR);

- Present the ODELRS and NRDP-PCWP database functionalities, enhancements, and improvements
- Incorporate relevant feedback and suggestions into the ODELRS and NRDP-PCWP database design and implementation process.

C. Implementation

- Finalize system design and enhancements;
- Incorporate the necessary enhancements and adjustments based on beta testing consultation results;
- Integration with existing EMB Systems and databases;
- Develop comprehensive training materials and user manuals for the ODELRS and NRDP-PCWP database;
- Provide detailed documentation outlining the system's architecture, features, and operational procedures;
- Coordinate with the EMB to plan and execute the deployment of the ODELRS and NRDP-PCWP database.

6. WORKPLAN

Table 1 presents the schedule of activities and deadlines for official deliverables of the Project. This schedule is primarily based on the contract between EMB and Daedalus IT solutions. (see table below)

Table 1. Schedule of Activities and Submission of Official Deliverables

Activity	In Weeks																							
	1st month				2nd month				3rd month				4th month				5th month				6th month			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mobilization	█																							
Drafting of Inception Report	█																							
Submission of Inception Report		█																						
Requirements Gathering		█																						
Stakeholder's Workshop			█																					
System Analysis					█	█																		
System Design						█	█																	
Submission of Wireframes/Design Documents								█																
Development of initial prototype									█	█	█	█	█	█	█	█								
Refinement/development of final prototype																	█	█						
Validation workshop																			█					
Documentation																				█				
Submission of final prototype																					█			

Submission of documentation/source code																								▮			
Users and Technical Training																									▮		
Coordinate with the EMB to plan and execute the deployment of the ODELRS Phase II and NRDP-PCWP database.																										▮	
Turnover of the System/Project Closure																											▮