

RESEARCH, DEVELOPMENT & EXTENSION DEPARTMENT (Luzon/Mindanao)

RESEARCH & LABORATORY Division (LAREC)

- Laboratory Services Section
- Production Technology & Crop Management Section

EXTENSION & TECHNICAL SERVICES Division

- Extension Services Section
- Technical Services Section

Functional Statement: RESEARCH DEVELOPMENT AND EXTENSION DEPARTMENT (Luzon/Mindanao)

Undertakes research and development on sugarcane farming, sugar processing in Luzon and Mindanao.

RESEARCH & LABORATORY DIVISION—LAREC

- ▶ Undertakes research and development on sugarcane farming, sugar processing and sugar co-products.
- ▶ Generates, verifies and recommends new technologies that will increase the yield and profitability of sugarcane farms and sugar millers in the areas covered by LAREC.
- ▶ Provides soils, cane juices and fertilizer laboratory/testing services.
- ▶ Develops and recommends new high yielding sugarcane varieties for commercial planting through hybridization, selection and variety testing.
- ▶ Provides technical services such as lime and fertilizer recommendations, soil fertility mapping, survey of potential sugarcane growing areas, pests and diseases assessment.
- ▶ Acquires, maintains and characterizes germ-plasm collection of foreign and local parental varieties for hybridization.

LABORATORY SERVICES SECTION— The Laboratory Services often referred as “SRA Laboratory”, is the National Sugar Reference Laboratory of the Philippines.

Purpose: Laboratory Services is mandated to provide all sectors of the Philippine sugar industry with a centralized analytical chemistry laboratory to serve as the sugar reference and service laboratory.

Functions

- ▶ Undertakes quality and safety tests for sugars, raw and white, as compliance check to national standards.
- ▶ Conducts quality tests for factory wastewater, solid wastes and other pollutants of the sugar industry as compliance check to national standards.
- ▶ Conducts physico-chemical analyses of sugar, sugar-based food products, sugar co-products, soils, fertilizers, plant leaves and tissues, and other agro-based materials.
- ▶ Recommends standards and/or requirements for raw and white sugars, molasses, muscovado, and other sugar co-products.
- ▶ Serves as referee involving quality and safety by among sugar centrals, refineries, planters, buyers, sellers and/or brokers and/or brokers.

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- ▶ Tests, calibrates and certifies to specifications of laboratory equipment and apparatus for sugar analysis.
- ▶ Undertakes research on chemical/instrumental methods for sugar analysis.
- ▶ Provide analytical support services to researches and the general public and to assist in the maintenance of environment-friendly sugar factories.

Clients: Laboratory users/clients include sugar centrals, refineries, traders, sugar planters, industrial users, researches, brokers and surveyors, other government agencies, and the general public.

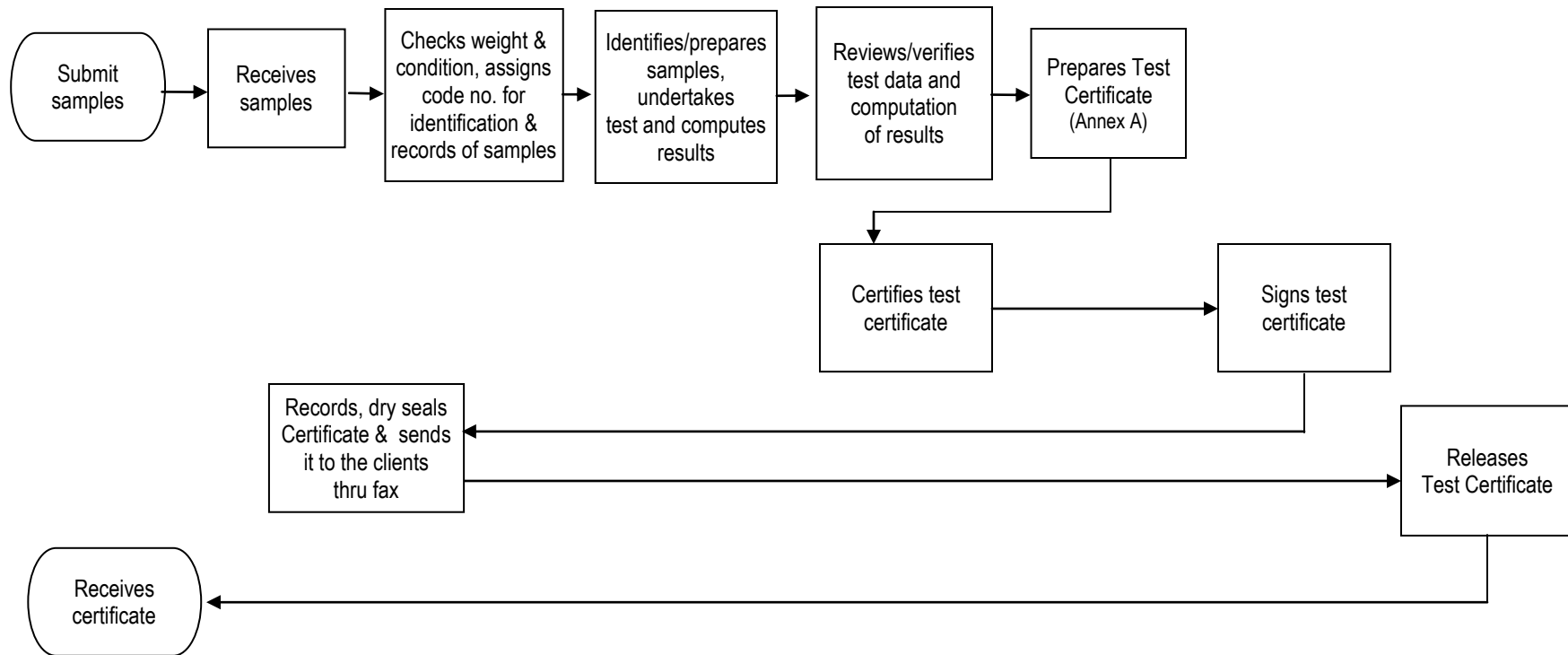
EXTENSION & TECHNICAL SERVICES DIVISION

- ▶ Disseminates recommended technologies and information on cane and sugar production, new high yielding varieties of sugarcane, sugarcane-based farming systems and co-products of sugarcane.
- ▶ Conducts farmers trainings/seminars in the different milling districts covered by LAREC. All functions are coordinated with the programs/projects of the respective Mill District Development Council (MDDC) and their respective Research and Extension Centers.
- ▶ Conducts technical assessment and provides technical assistance, analytical, and extension services to the mills and refineries in areas of machineries, energy, process, capacity and environment.
- ▶ Provides technical/engineering support as maybe required by any SRA unit and/or industry constituents.

**RESEARCH DEVELOPMENT & EXTENSION DEPARTMENT—Luzon/Mindanao
Research & Laboratory Division—Laboratory Services Section**

Sugar Quality and Safety Assessment (PNS 1097:1993) Analysis of Raw Sugar and Molasses from Sugar Mills

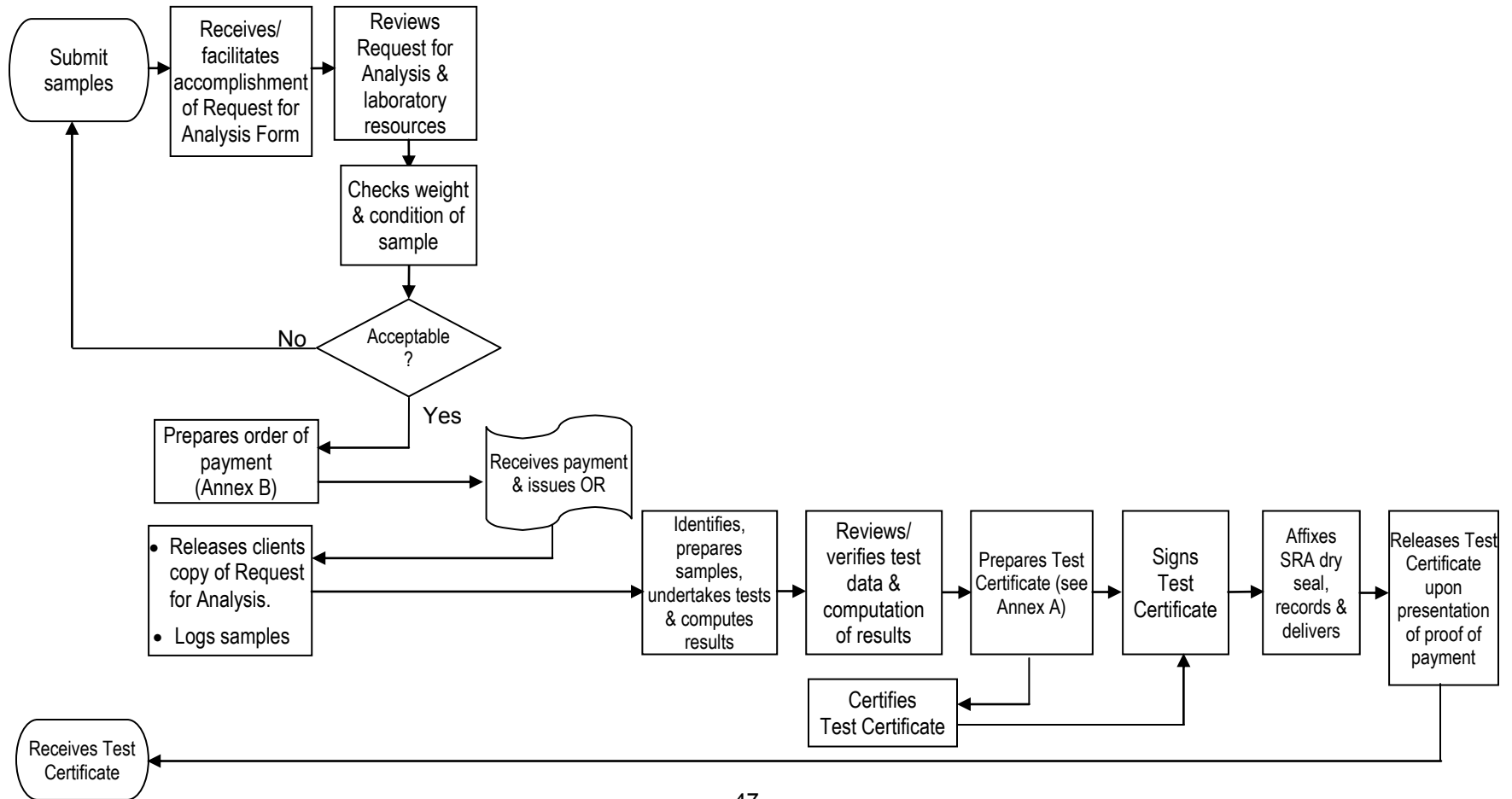
Sugar Refineries	Science Aide	Chemist I	All Chemists & Science Aides	Chemist III/ Chief Science Research Specialist	Chemist II/ Chemist I	Manager III/ Chief Science Research Specialist	Records Division
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**RESEARCH DEVELOPMENT & EXTENSION DEPARTMENT—Luzon/Mindanao
Research & Laboratory Division—Laboratory Services Section**

Analysis of Raw and White Sugars, Molasses and Other Sugar-Based Products (from Walk-In Clients and other Laboratory Users)

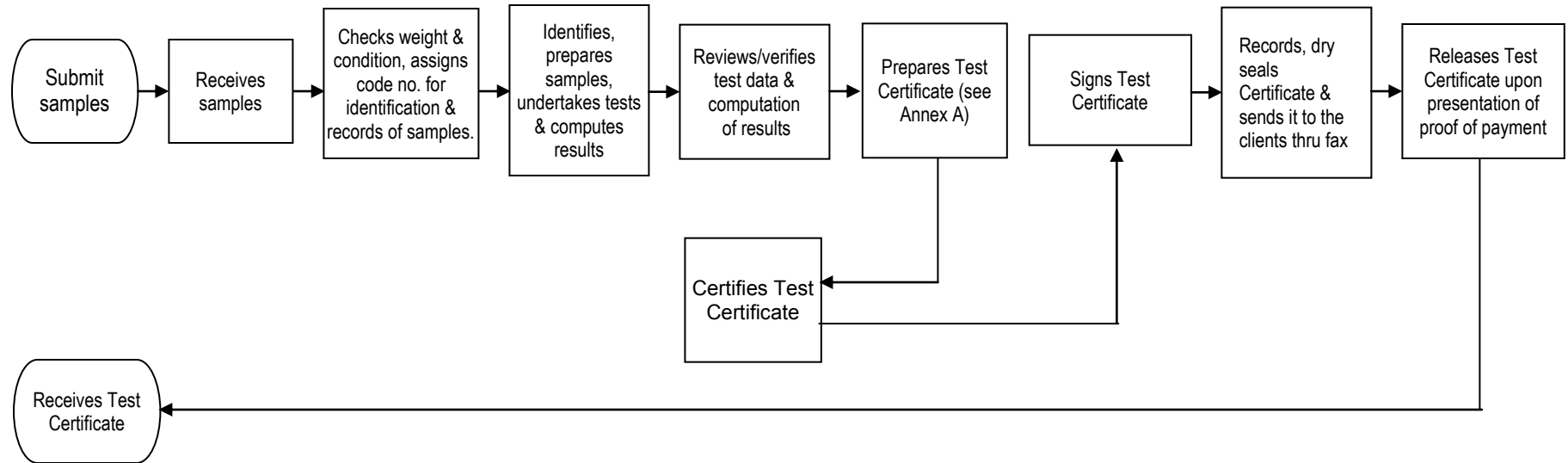
Clients	Chemist I	Chemist II	Treasury Division	All Chemists/Lab Tech I/ Science Aides	Chemist III/ Chief Science Research Specialist	Chemist II/ Chemist I	Manager III	Science Aides	Records Division
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**RESEARCH DEVELOPMENT & EXTENSION DEPARTMENT—Luzon/Mindanao
Research & Laboratory Division—Laboratory Services Section**

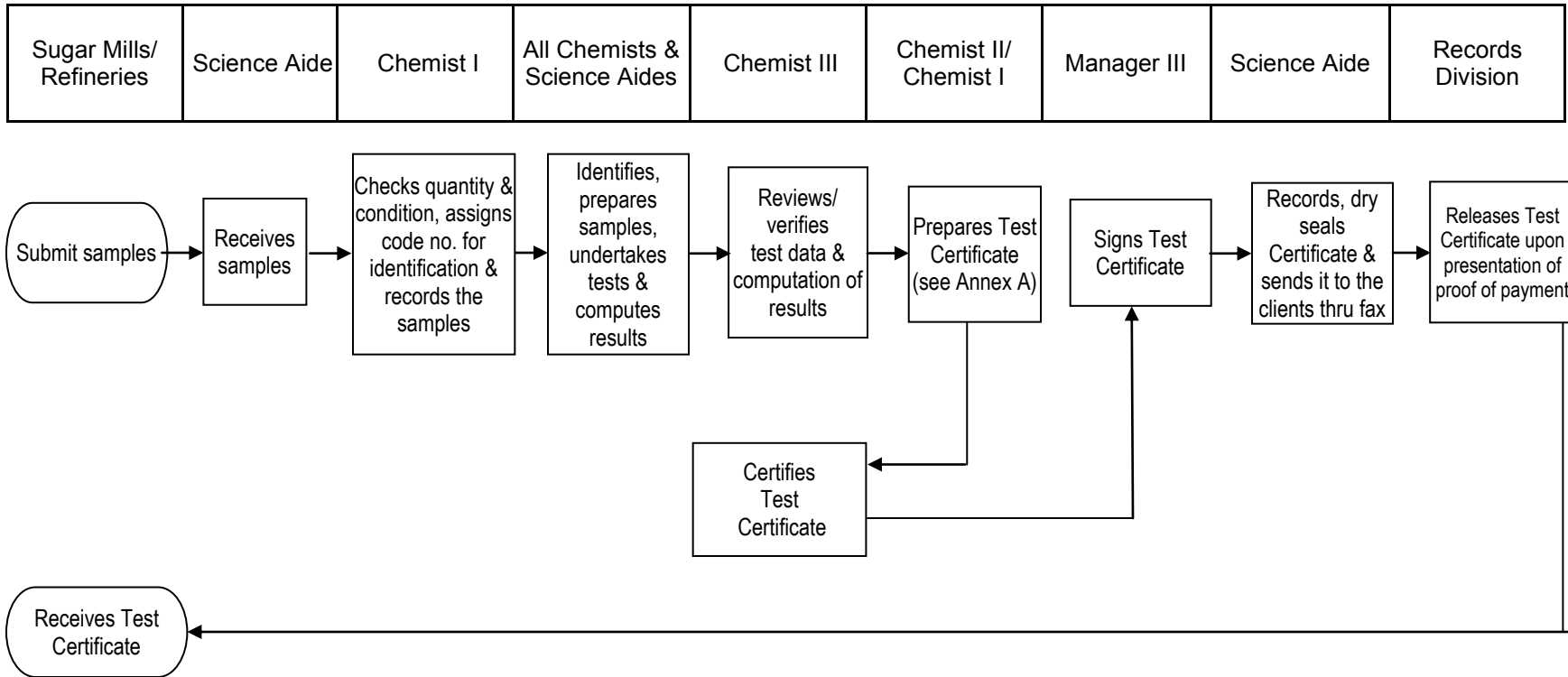
Sugar Quality and Safety Assessment (PNS 1098:1993) Analysis of White Sugar from Refineries

Sugar Refineries	Science Aide	Chemist I	All Chemists & Science Aides	Chemist III/ Chief Science Research Specialist	Chemist II/ Chemist I	Manager III/ Chief Science Research Specialist	Science Aides	Records Division
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**RESEARCH DEVELOPMENT & EXTENSION DEPARTMENT—Luzon/Mindanao
Research & Laboratory Division—Laboratory Services Section**

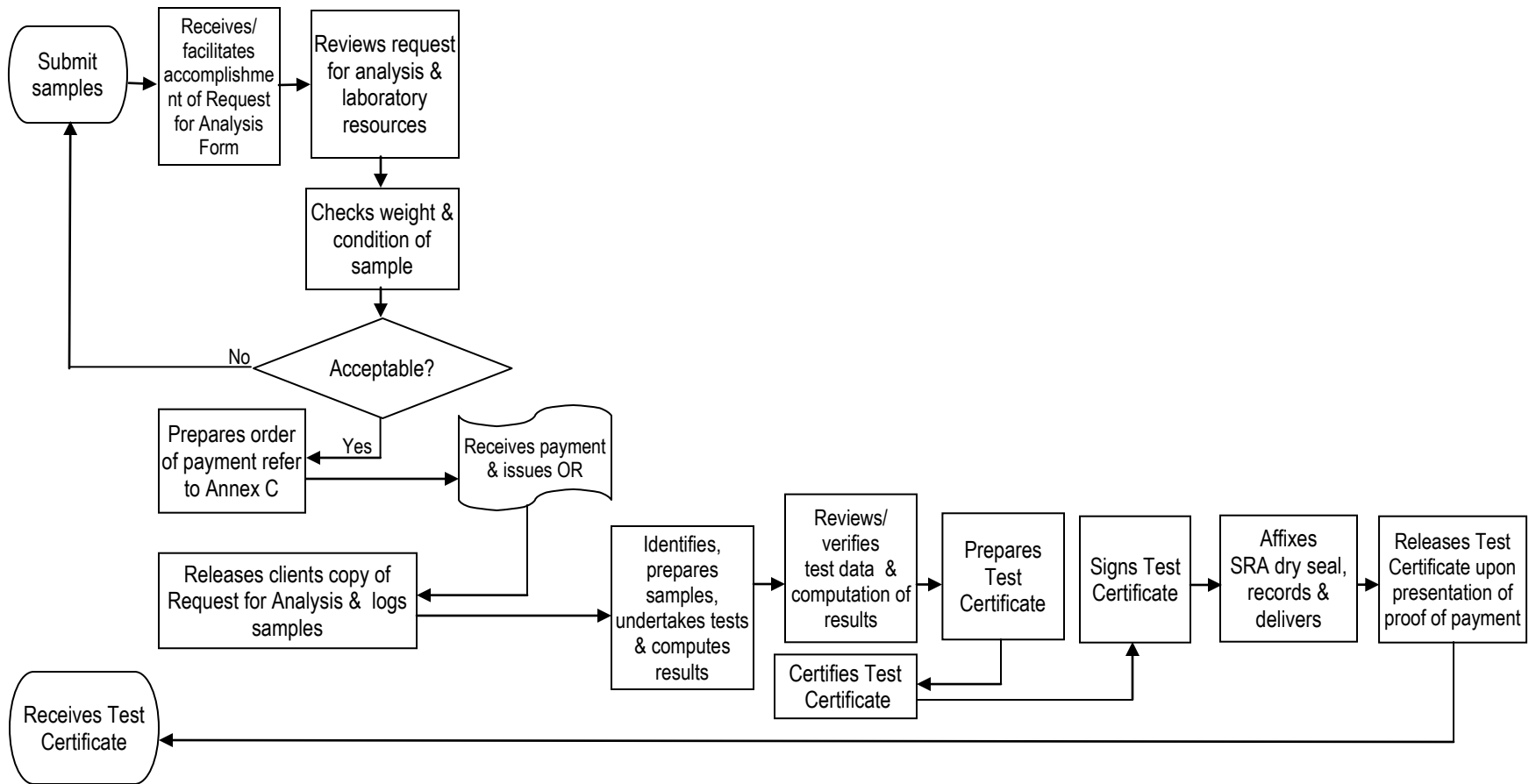
Analysis of Waste Water and other Pollutants from Sugar Mills and Refineries



**RESEARCH DEVELOPMENT & EXTENSION DEPARTMENT—Luzon/Mindanao
Research & Laboratory Division—Laboratory Services Section**

Analysis of Fertilizer, Plant Leaves, and Tissue, Water, Soil and other Agro-Industrial Products/Materials (from Walk-in Clients & other Laboratory Users)

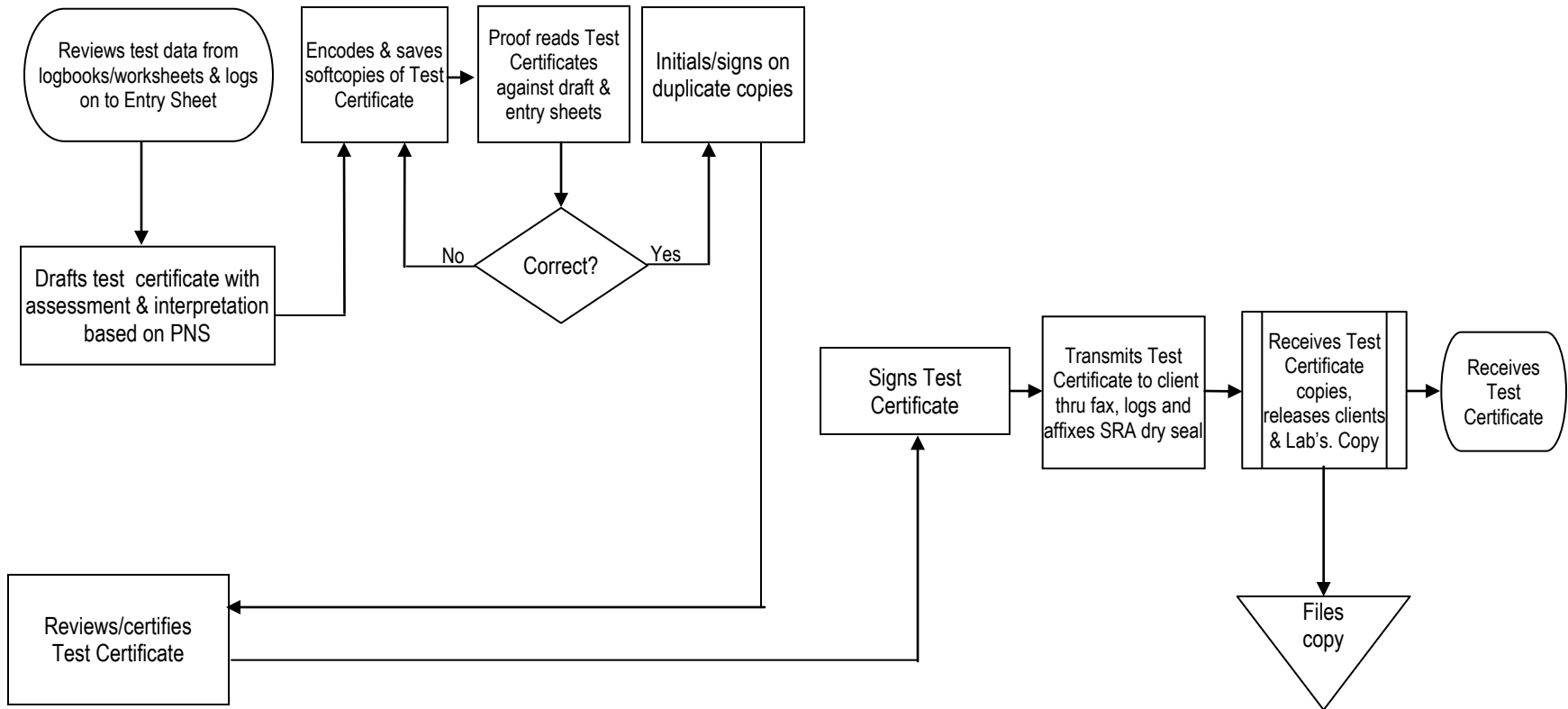
Clients	Chemist I	Chemist II	Treasury Division	All Chemists/ Science Aides	Chemist III	Chemist II/ Chemist I	Manager III	Science Aides	Records Division
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**RESEARCH DEVELOPMENT & EXTENSION DEPARTMENT—Luzon/Mindanao
Research & Laboratory Division—Laboratory Services Section**

Procedure for Reporting the Test Results (Annex A)

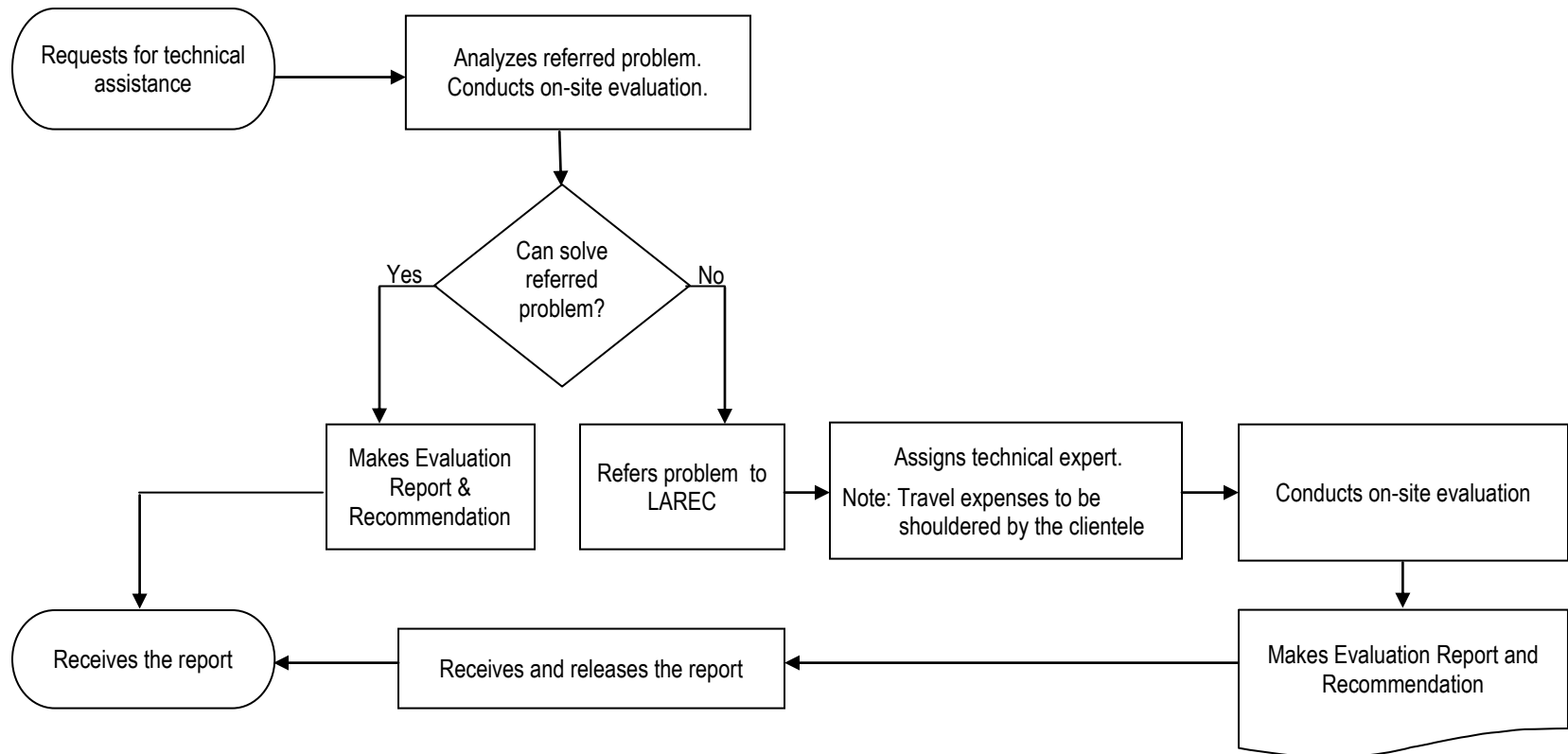
Chief Science Research Specialist/ Chemist III	Chemist I	Chemist II	Chemists I, II & III	Manager III/ Chief Science Research Specialist	Science Aide	Records Division	Client
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Research & Laboratory Division—Laboratory Services Section**

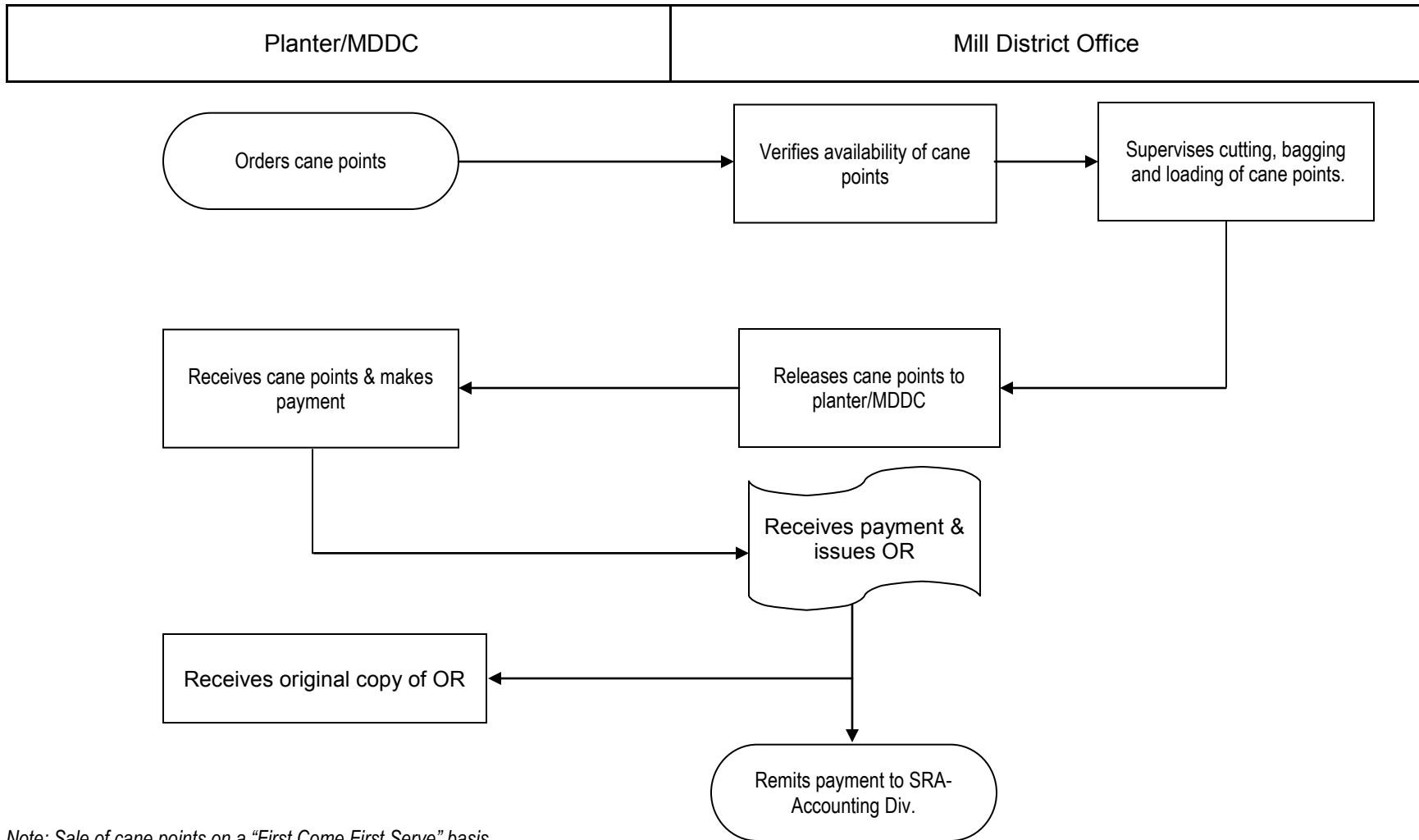
Technical Assistance – On-Site Evaluation/Survey of Referred Field Problems

Farmer, Cooperative/ Association, MDDC and other Clientele	Extension and Technical Services Division/Mill District Agriculturist	Manager III	LAREC Technical Expert
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Extension & Technical Services Division—Extension Services Section**

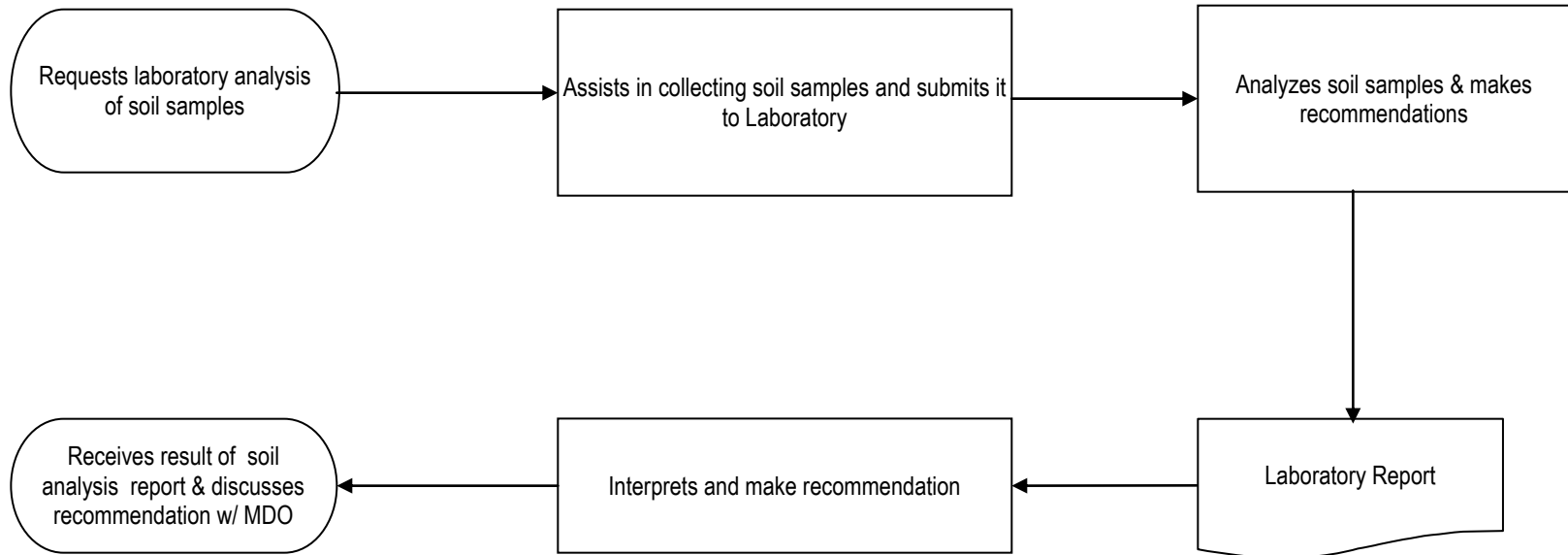
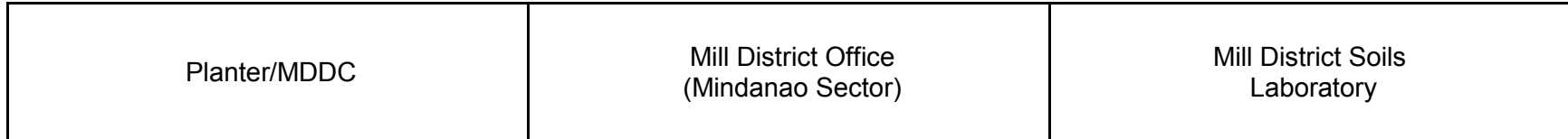
Sale of High Yielding Varieties (HYV's) of Sugar Cane at Mill District Nursery Farms



Note: Sale of cane points on a "First Come First Serve" basis

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Extension & Technical Services Division—Extension Services Section**

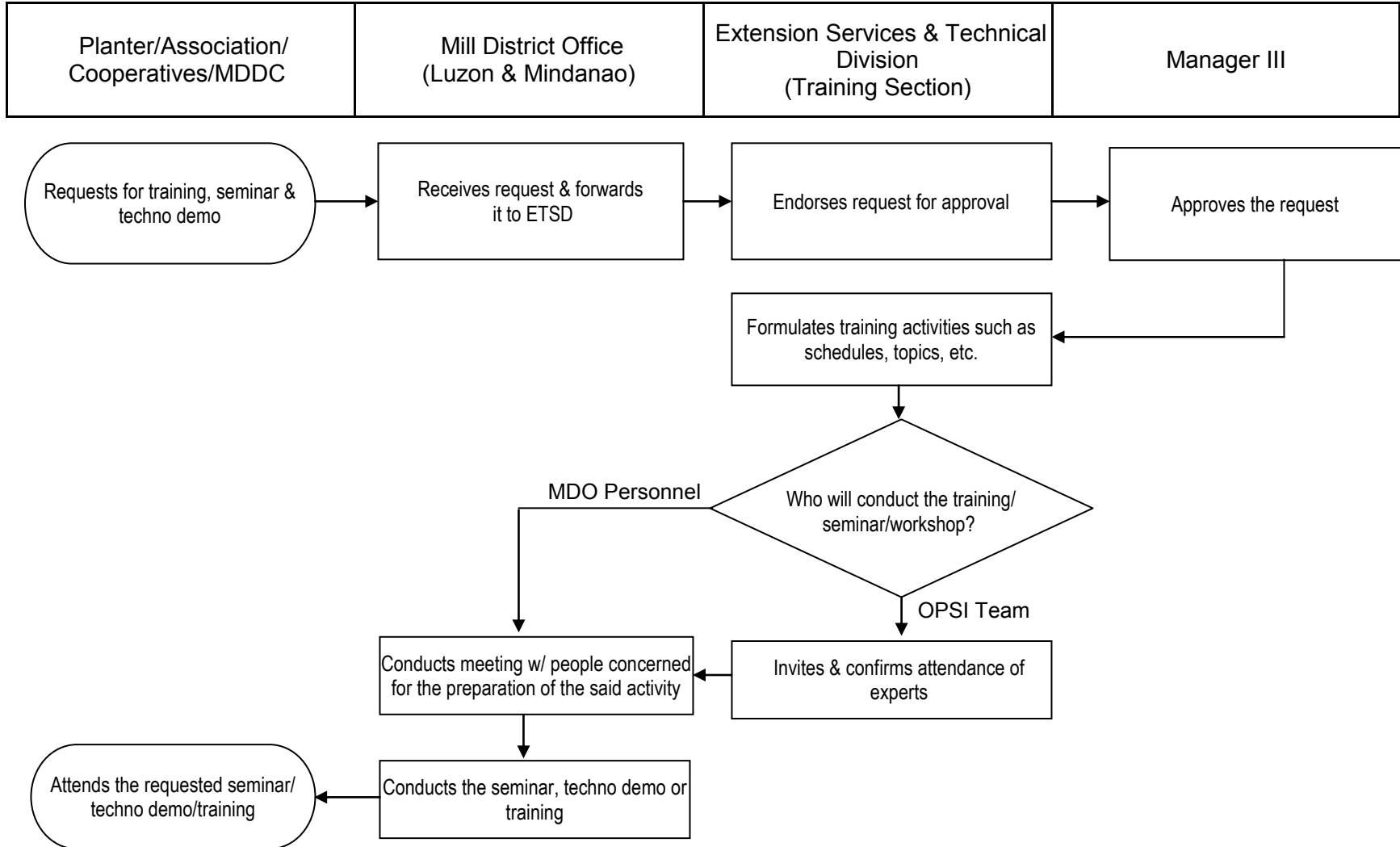
Laboratory Analyses of Soil Samples for Lime and Fertilizer Recommendations (Mill District Soils Laboratory-Mindanao)



Note: Free of Charge-“Cost-Sharing”

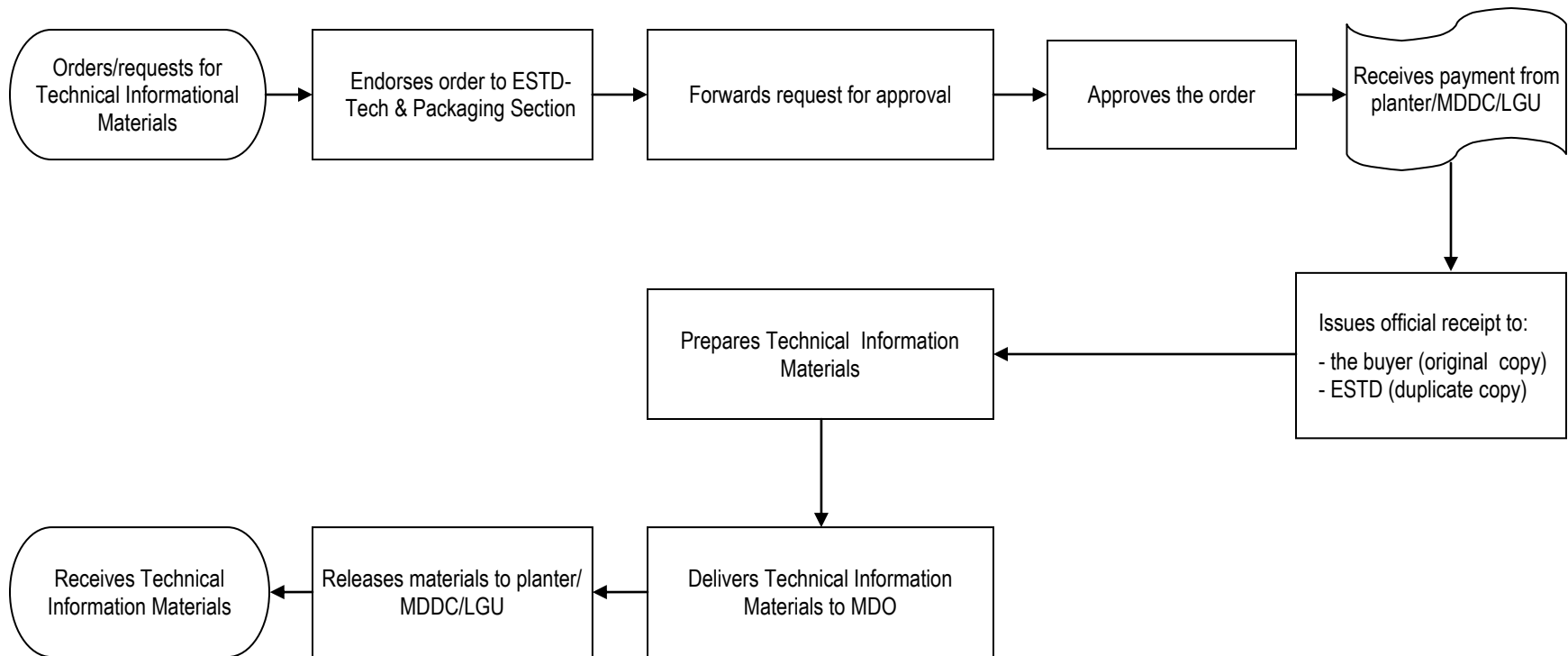
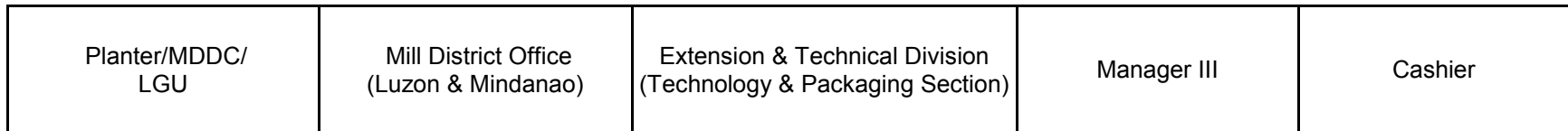
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Extension & Technical Services Division—Extension Services Section**

Farmers Training Seminars and Workshops



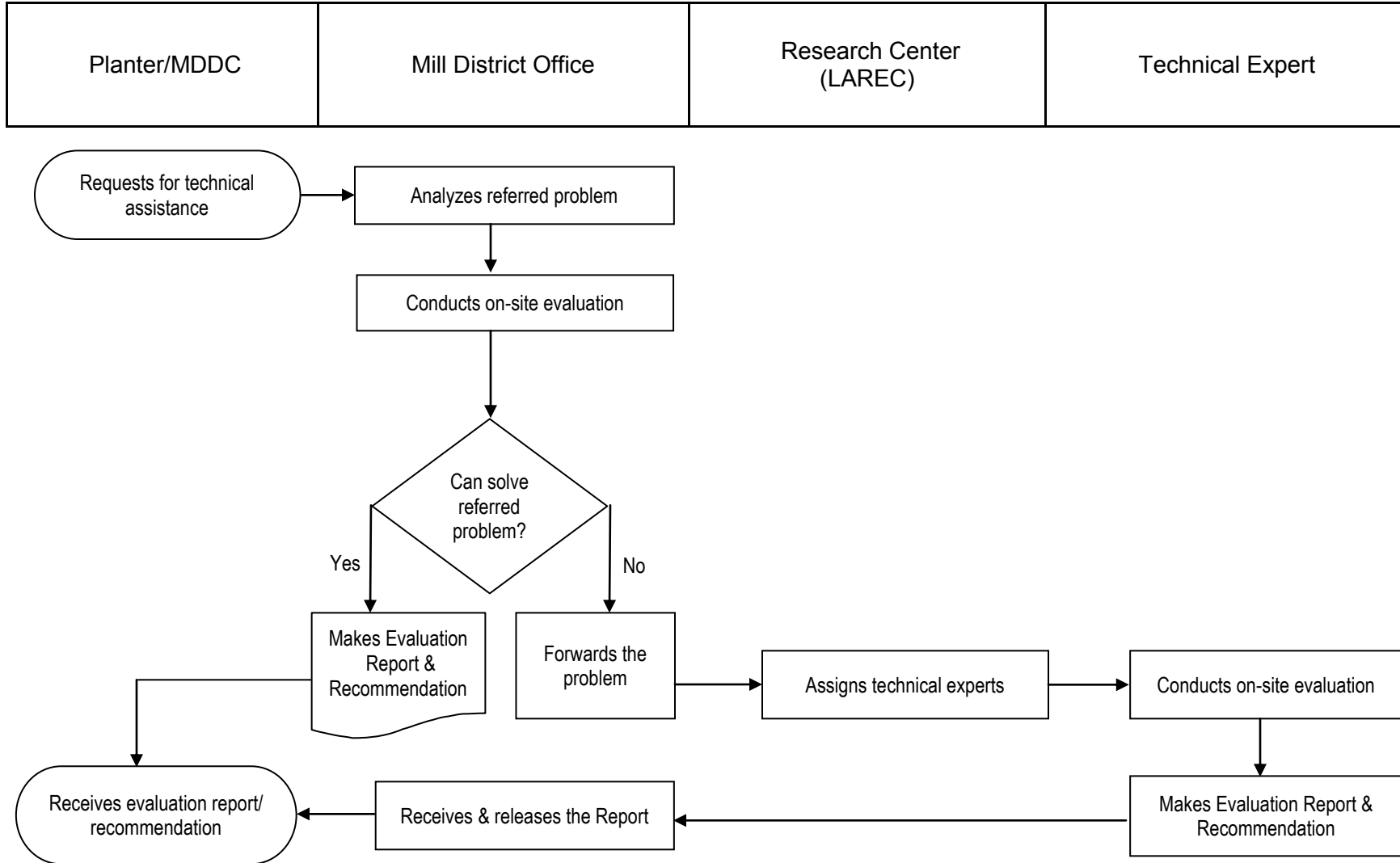
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Extension & Technical Services Division—Extension Services Section**

Technical Information Materials



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Extension & Technical Services Division—Extension Services Section**

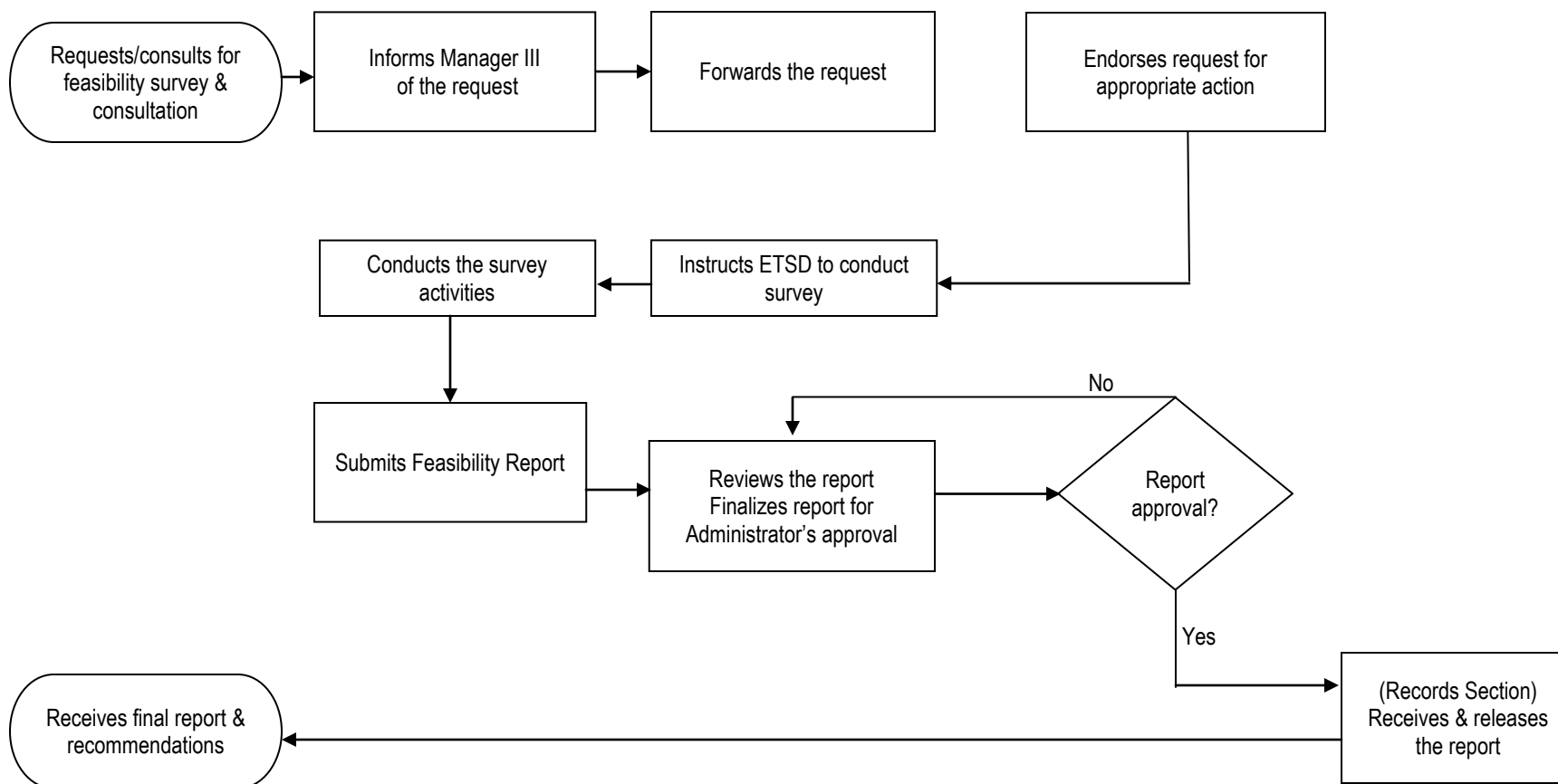
Technical Assistance



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Extension & Technical Services Division—Extension Services Section**

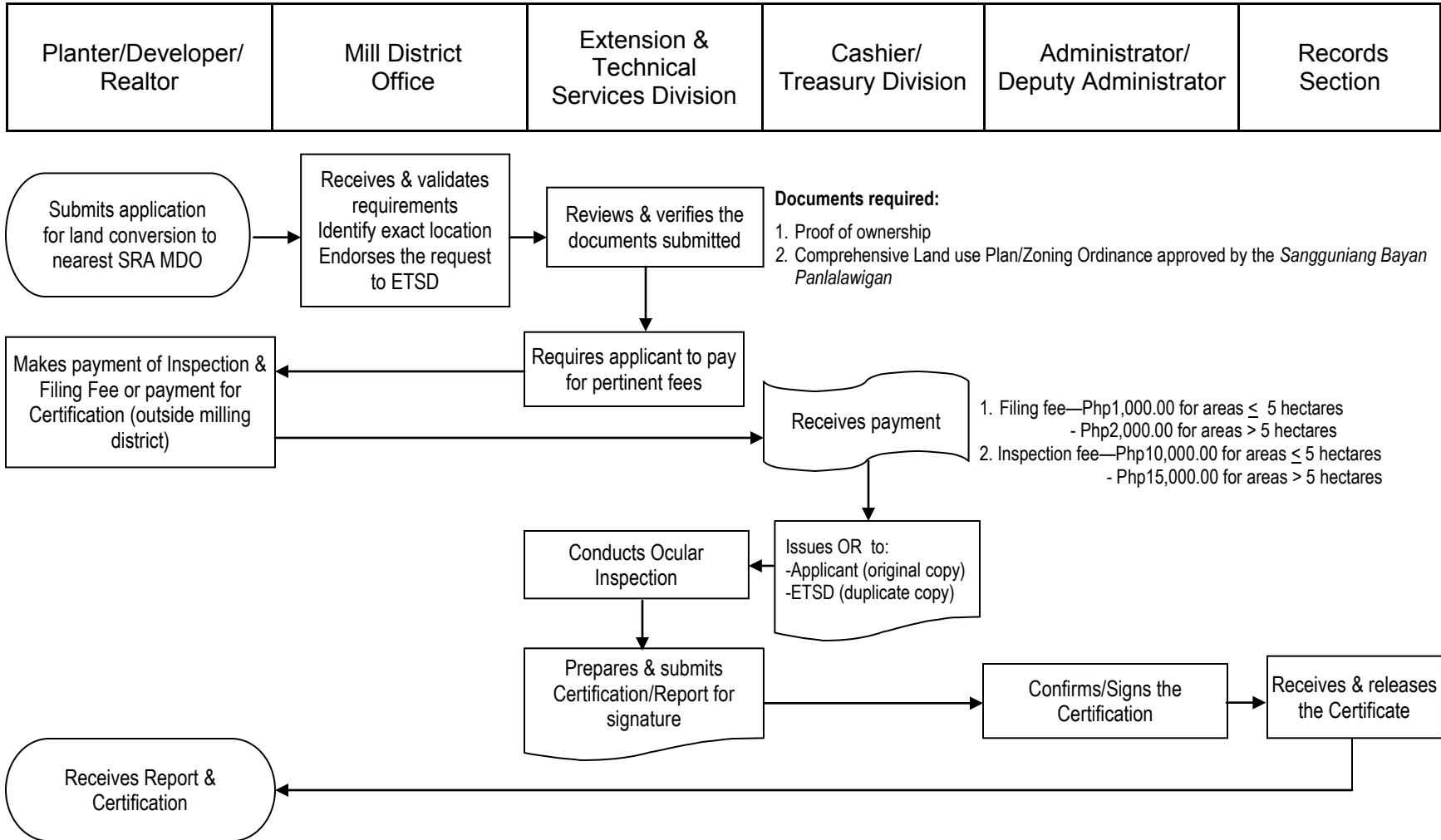
Feasibility Survey of Potential Sugarcane Area

Prospective Planter/ Miller	Extension & Technical Services Division	Manager III	Office of the Administrator	Records Section
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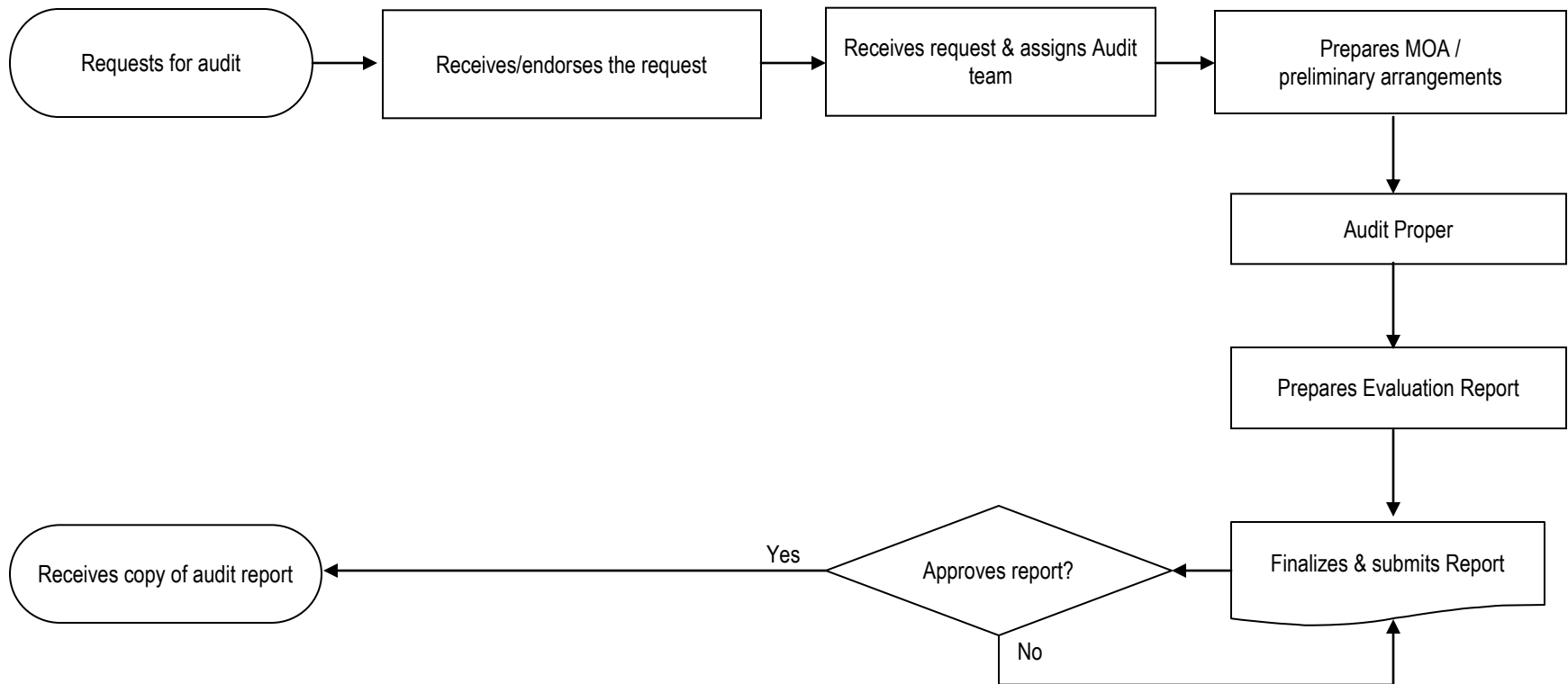
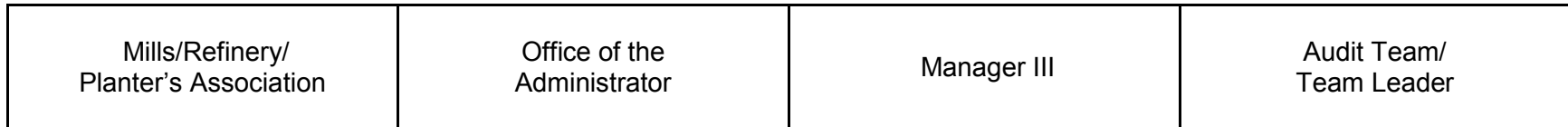
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Extension & Technical Services Division—Extension Services Section**

Land Conversion



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Extension & Technical Services Division—Technical Services Section**

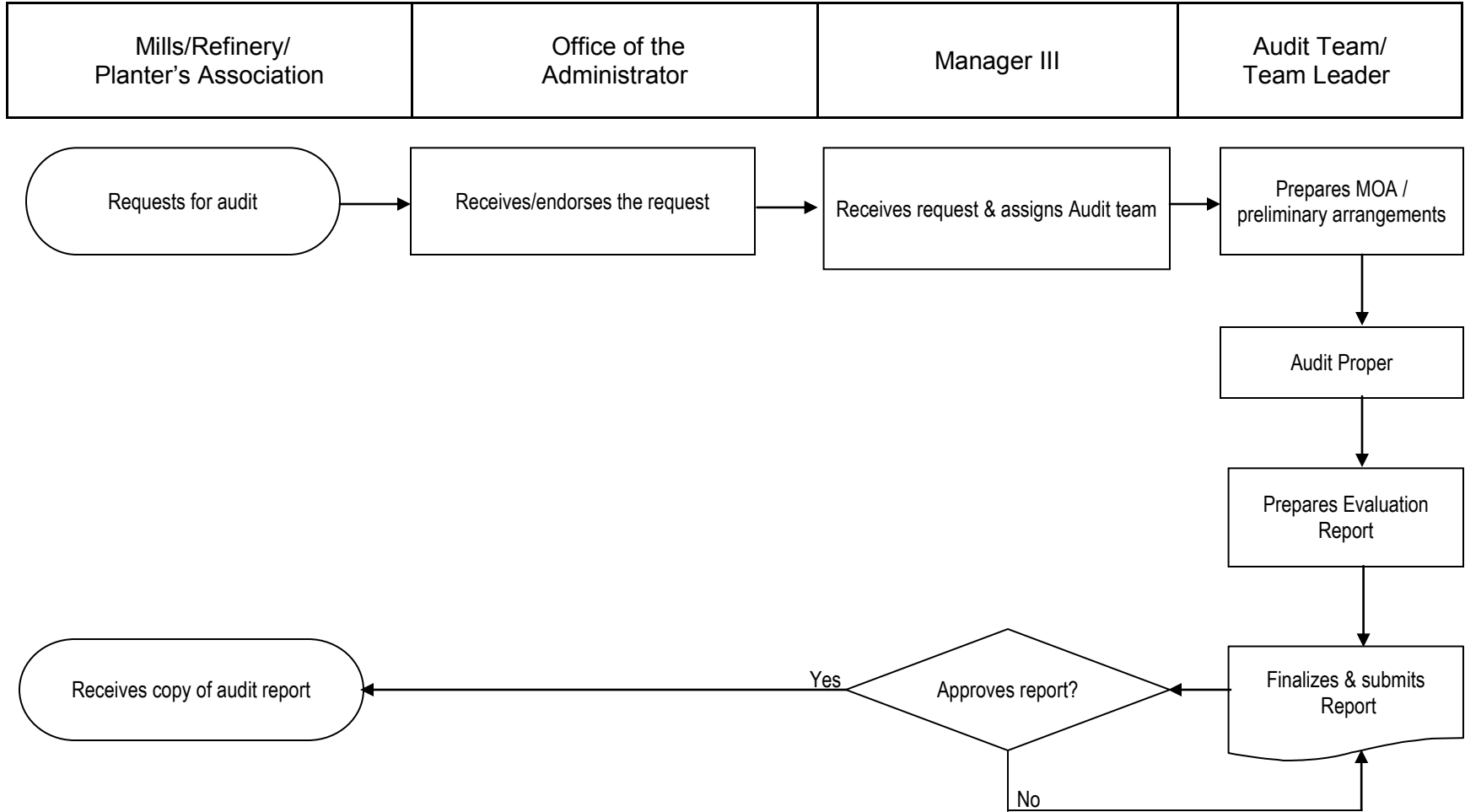
Capacity, Performance and Pollution Management Appraisal



Note:
 1-2 weeks for MOA preparation and preliminary arrangements.
 9-10 days for Audit proper including travel time.
 A month for the preparation up to the submission of Evaluation Report.

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Extension & Technical Services Division—Technical Services Section**

Energy Audit

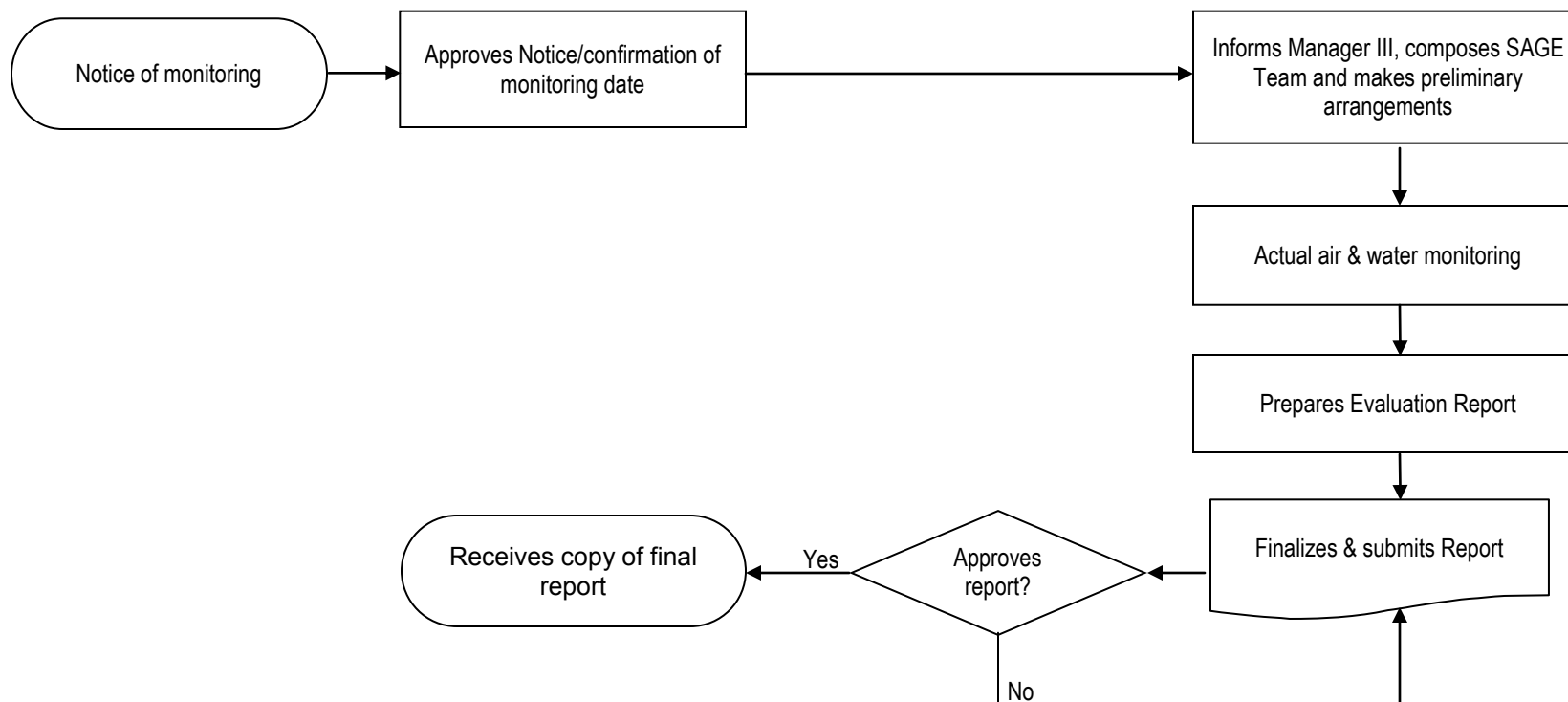


*Note: 1-2 weeks for MOA preparation and preliminary arrangements.
9-10 days for Audit proper including travel time.
A month for the preparation up to the submission of Evaluation Report.*

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Extension & Technical Services Division—Technical Services Section**

Air & Water Quality Monitoring

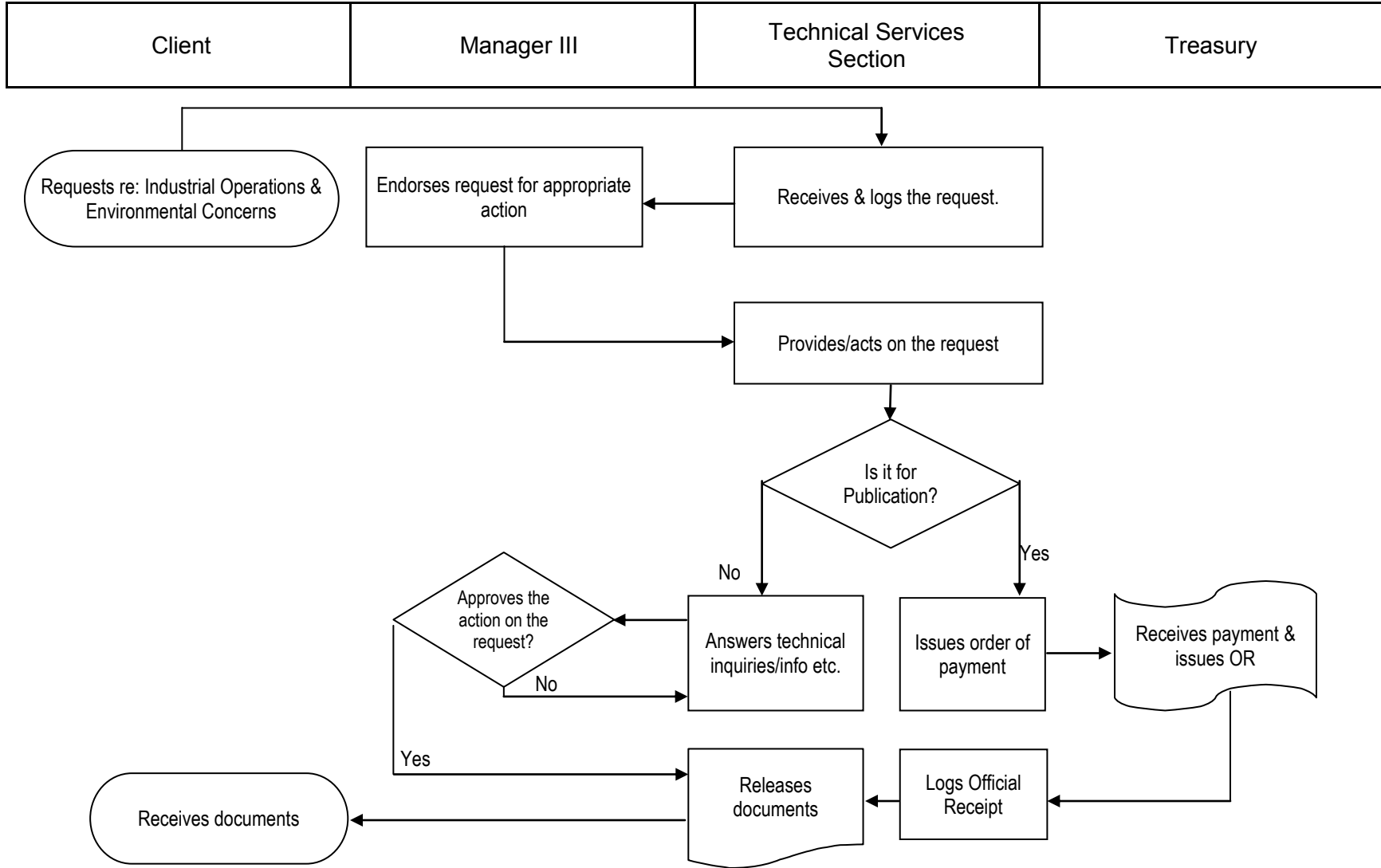
SRA-SAGE	Mills/Refineries	Manager III	SAGE Team/ Team Leader
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*Note: 4-5 days for monitoring including travel time (Luzon Mills)
(depending on the total number of smoke stacks to be monitored)
15 days for monitoring in Mindanao Mills including travel time*

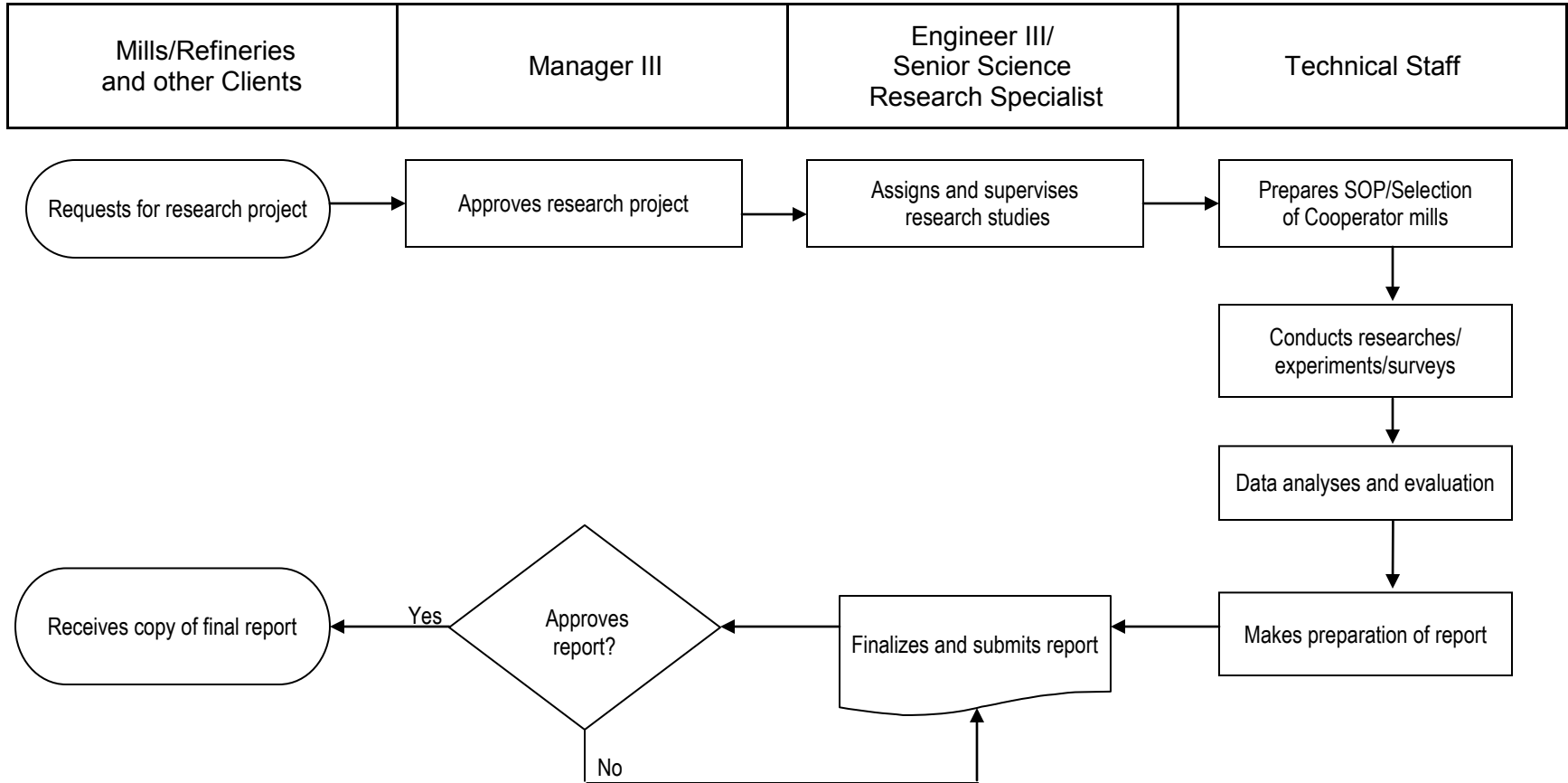
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Extension & Technical Services Division—Technical Services Section**

Technical Inquiries/Researches/Information/Publication



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Project Based Researches



*Note: Time lines from SOP preparation to the conduct of Experiments/surveys depends on the nature of the research Project requested.
Data analyses and evaluation up to the Final report takes 3-4 weeks.*

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Verification Process of Area Suitability Certification

