

BIODIVERSITY ASSESSMENT REPORT

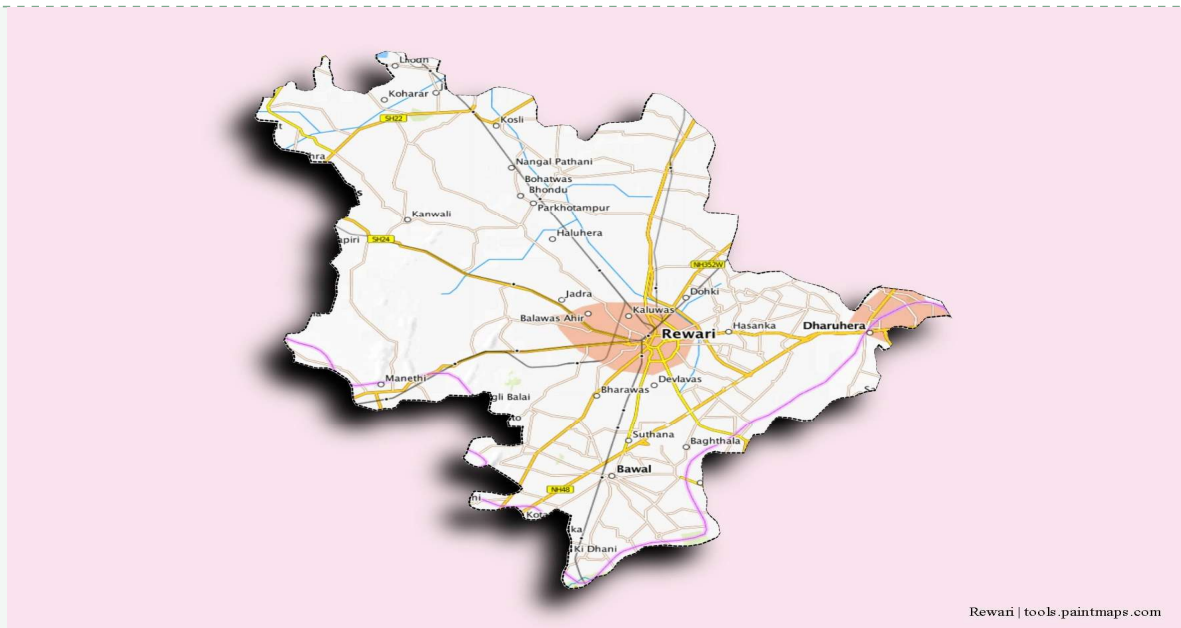
Biodiversity Risk,
Impact and
Management
Assessment Report

*GLS Aluminium
Industries Pvt. Ltd. -
Rewari, Haryana, India*

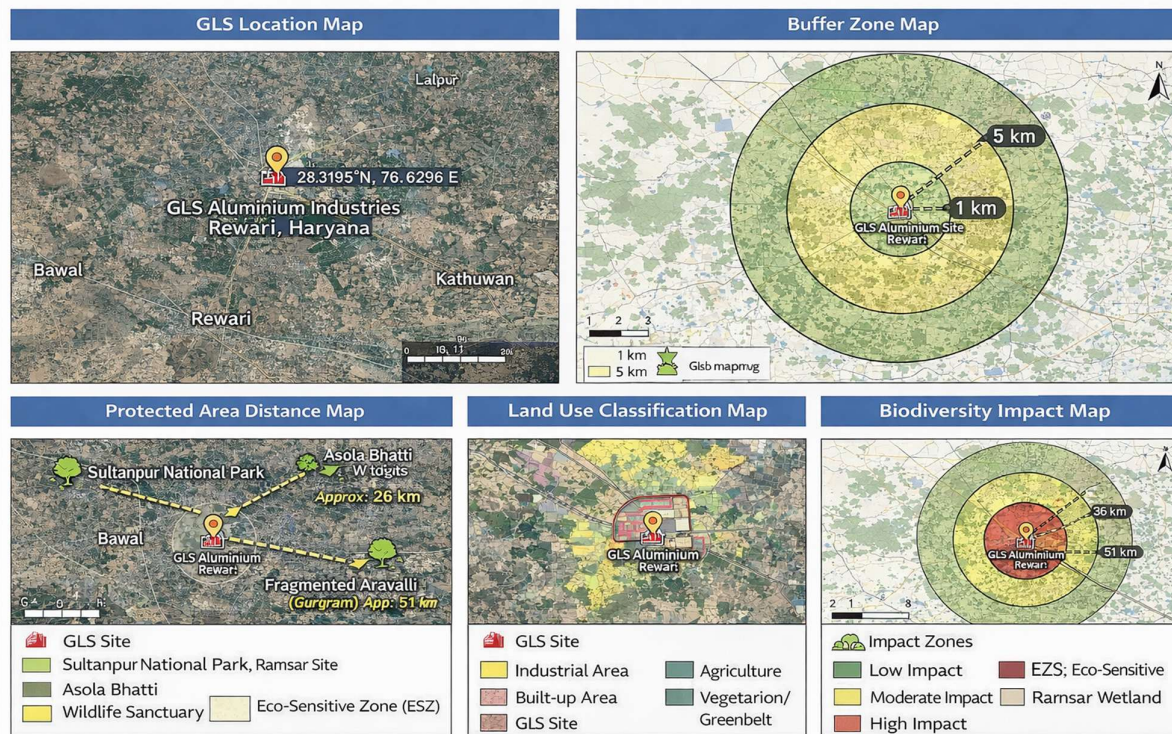


Prepared for: ASI Performance Standard Conformance, GRI 101 / GRI 304 Readiness, and Sustainability Due Diligence

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Biodiversity & Environmental Assessment: GLS Aluminium Industries Pvt. Ltd., Rewari, Haryana



Document Control

Document Title	Biodiversity Risk, Impact and Management Assessment Report
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Prepared By	Dr. Vijay Sonawane
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Biodiversity Risk Category	Very Low / Controlled
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Revision History

Revision	Date	Description	Prepared / Updated By	Approval Status
00	April 2026	Initial professional Word template prepared	Dr. Vijay Sonawane	Draft

Distribution List

Sr. No.	Recipient / Function	Purpose	Controlled Copy
1	Top Management	Review and approval	Yes
2	EHS / Sustainability	Implementation and monitoring	Yes
3	Admin / Maintenance	Greenbelt, drainage and housekeeping actions	Yes
4	ASI Auditor / Customer	Assurance / review use	As required
5	Consultant File	Technical reference	Yes

Disclaimer and Methodological Notes

This report is prepared as a practical industrial biodiversity risk, impact and management assessment for GLS Aluminium Industries Pvt. Ltd., Rewari, Haryana. It is intended to support ASI Performance Standard readiness, GRI biodiversity disclosure support, customer sustainability review and internal environmental management. The assessment is based on available site information, maps, limited physical survey, stakeholder consultation, flora and fauna rating records and professional interpretation. It is not a long-term ecological research study, a full taxonomic inventory or a multi-season ecological population survey.

Species lists and photo-reference records are used for site-relevance assessment, awareness and evidence traceability. They shall not be interpreted as conservation-status certification or legal species confirmation unless supported by direct observation or verified record.

Statement of Independence and Objectivity

The assessment has been prepared independently based on available site information, maps, limited physical survey, stakeholder consultation, flora and fauna rating records and professional interpretation. The conclusions have been developed without overstating biodiversity risk or making unsupported ecological claims. The report is intended to support practical biodiversity management, ASI readiness, GRI disclosure support and internal review.

Report Boundary Statement

The boundary of this report is limited to the GLS Aluminium Industries Pvt. Ltd. site at Rewari, Haryana, including its plant boundary, greenbelt / open areas, built-up areas, drainage points, waste / housekeeping interface, nearby agricultural and road-influenced surroundings, and regional protected-area context. The report does not cover upstream mining biodiversity impacts, full value-chain biodiversity footprinting or long-term ecological population studies.

Use of Rating System Clarification

The flora and fauna ratings used in this report are site-relevance ratings. They are not conservation-status ratings and shall not be interpreted as IUCN, legal protection or threat-status classifications. The rating indicates whether the species or group is very low, low or more likely to be relevant to the GLS site context.

Original Rating	Final Report Rating	Interpretation
0	1	Very low / rare / not significant for GLS site
1	2	Low / possible / occasional regional relevance
2	3	Common / more relevant to disturbed, agricultural, roadside or plantation context

No Overclaiming Statement

The report does not claim that all flora and fauna listed in the photo-reference plates are confirmed within the GLS site. The photo-reference plates are used for awareness, identification support and site-relevance rating. Species shall be treated as site-confirmed only where observed, photographed, recorded or credibly reported.

Executive Dashboard and Methodology Flow

Key Findings Dashboard

Parameter	Finding	Status
Site biodiversity risk	Very Low / Controlled	Green
Protected area within site	Not identified	Green
Forest habitat within site	Not identified	Green
Wetland habitat within site	Not identified	Green
Significant flora habitat	Not identified	Green
Significant fauna habitat	Not identified	Green
Stakeholder concern	No material concern raised	Green
Ecosystem service dependency	Low	Green
Monitoring frequency	Annual	Green
Offset requirement	Not applicable	Green

Methodology Flow Diagram

Site Information Review	Map / GIS Screening	Protected Area Screening	Limited Physical Survey
Flora / Fauna Rating	Stakeholder Consultation	Ecosystem Services Review	Risk and Impact Assessment
Mitigation Hierarchy	BAP	KPI Monitoring	Management Review

Template Use Note

This Word template follows the final GLS biodiversity report structure. Paste each approved chapter into the corresponding chapter section. Keep the annexures as Volume II - Annexure and Evidence Pack, and retain only the annexure index and selected evidence references in this main report.

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CHAPTER 01

Introduction and Background

1.1 Introduction

Biodiversity is an important part of responsible industrial sustainability management. Even where an industrial site is located outside a protected area or high biodiversity habitat, it is still necessary to understand the site's relationship with land use, vegetation, water, surrounding communities, common fauna, ecosystem services and natural receptors. This is especially important where an organisation is preparing for ASI Performance Standard requirements, customer sustainability evaluation or public ESG disclosure.

GLS Aluminium Industries Pvt. Ltd., Rewari, Haryana, has undertaken this Biodiversity Risk, Impact and Management Assessment to understand the biodiversity relevance of its site and surrounding area. The assessment has been prepared in a practical and evidence-based manner. It considers the actual site setting, available government and official sources, GIS / map evidence, land-use information, limited physical site survey, stakeholder consultation and site-relevance rating of flora and fauna.

The assessment is not intended to overstate biodiversity risk. The GLS site is not located in a forest, wetland, protected area or high biodiversity habitat. The surrounding landscape is influenced by Rewari city, road networks, industrial development, settlements and agriculture. Therefore, the assessment has adopted a proportionate approach suitable for a very low biodiversity risk industrial site.

At the same time, the report recognises that even very low-risk industrial sites should maintain good biodiversity management practices. These include greenbelt maintenance, open-area management, invasive weed prevention, wildlife no-harm awareness, drainage review, waste control, annual monitoring and management review.

1.2 Background of the Assessment

The requirement for biodiversity assessment has become more important under sustainability frameworks such as ASI Performance Standard and GRI biodiversity disclosures. These frameworks expect companies to identify biodiversity risks, assess potential impacts, consider ecosystem services, apply the mitigation hierarchy and maintain monitoring records.

For GLS, the assessment was developed in the context of ASI biodiversity expectations and customer sustainability readiness. Earlier discussions and assessment work identified the need to prepare a structured biodiversity report covering site context, land use, protected-area screening, flora, fauna, invasive species, stakeholder consultation, ecosystem services, risk assessment, impact assessment, mitigation hierarchy, Biodiversity Action Plan and KPI monitoring.

During the development of the report, the original approach was made more practical and site-specific. Since GLS is located in a developed and road-influenced landscape near Rewari city, and since no significant biodiversity feature was found during the limited physical survey, the final report approach was simplified. The biodiversity risk classification was revised to very low risk. The monitoring system was also simplified from detailed monthly / quarterly monitoring to annual monitoring with ten practical indicators.

This approach makes the report more realistic, auditable and defensible. It avoids unnecessary ecological claims and avoids creating a heavy biodiversity management system that is not proportionate to the site's actual risk.

1.3 Site-Level Biodiversity Context

GLS Aluminium Industries Pvt. Ltd. is located in Rewari district, Haryana. The site is near city, road and agriculture-influenced surroundings. The area around the plant is not a remote natural habitat. It is part of a developed / semi-urban / agricultural landscape where industrial activity, transport routes, settlements and agricultural land are present.

The available site coordinate map identifies the approximate site location as 28.3195° N, 76.6296° E. The available regional and composite maps show the site in relation to Rewari, road networks, nearby villages, agricultural land, industrial surroundings and regional protected / natural areas. The available protected-area distance maps indicate that major protected or natural receptors such as Sultanpur National Park, Asola Bhatti Wildlife Sanctuary and Aravalli forest patches are located away from the GLS site.

The site's total land area is 153,249 square metres. Approximately 14 percent of the land is built-up and approximately 86 percent is greenbelt / open area. This large open and green area is useful for environmental management, but it is not considered a natural high-biodiversity habitat based on the limited physical survey and land-use screening.

1.4 Need for Biodiversity Assessment

The biodiversity assessment was required for the following reasons:

To support ASI Performance Standard biodiversity criteria.

To identify whether the GLS site is located in or near protected areas, Eco-Sensitive Zones, Ramsar wetlands or high biodiversity areas.

To assess the relevance of flora, fauna, pollinators and invasive species to the site.

To understand whether the company's operations create any significant biodiversity impact.

To assess ecosystem service dependency and possible stakeholder concerns.

To prepare a Biodiversity Action Plan suitable for the actual risk level of the site.

To establish simple and practical biodiversity KPIs for annual monitoring.

To maintain audit-ready evidence for customer, ASI and sustainability review.

To demonstrate that the company has followed a systematic and responsible approach.

1.5 Approach Adopted

The approach adopted for this assessment is based on the principle of proportionality. A very low biodiversity risk industrial site should not be treated in the same way as a mining project, forest-edge project, wetland-adjacent project or infrastructure project passing through wildlife habitat. Therefore, the assessment has been kept systematic but practical.

The following approach was adopted:

Review of company site context and operational information.

Review of land area, built-up area and greenbelt / open area.

Review of available GLS location maps, GIS maps and protected-area distance maps.

Review of government and official biodiversity references.

Limited physical site survey.

Stakeholder consultation with internal and nearby external stakeholders.

Flora photo-reference rating.

Fauna photo-reference rating.

Invasive / exotic flora screening.

Ecosystem services screening.

Risk and impact assessment.

Mitigation hierarchy evaluation.

Development of practical Biodiversity Action Plan.

Development of annual KPI monitoring system.

This approach provides sufficient evidence for a very low-risk site and avoids unnecessary assumptions.

1.6 Key Assessment Finding

The key finding of this assessment is that GLS Aluminium Industries Pvt. Ltd. is a very low biodiversity risk industrial site.

This conclusion is supported by the following:

The site is near Rewari city and road / highway influence.

The surrounding area is mainly agricultural, semi-urban and industrial.

No forest habitat was identified within the site.

No wetland habitat was identified within the site.

No protected habitat was identified within the site.

No high biodiversity habitat was identified within or immediately around the site.

No significant wildlife movement or wildlife corridor was reported.

No material biodiversity concern was raised by stakeholders.

No major invasive species spread was identified.

No direct operation-linked impact on protected areas was identified.

Annual monitoring is adequate for the site.

1.7 Report Limitation

This report is based on a limited physical survey and is not a multi-season scientific biodiversity research study. However, for the purpose of ASI audit readiness and industrial biodiversity management, the assessment is adequate because the site is clearly located in a developed, road-influenced and agriculture-surrounded setting with very low biodiversity sensitivity.

Where future changes occur, such as major land-use change, expansion, significant tree cutting, new water discharge pathway, protected species sighting or stakeholder complaint, the biodiversity risk assessment should be reviewed.

CHAPTER 02

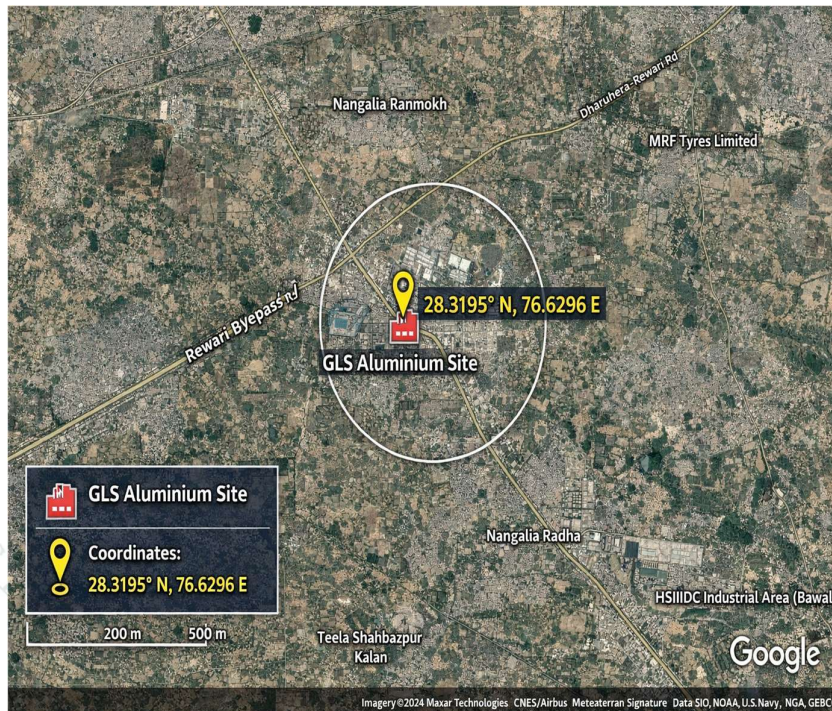
Organisational and Operational Context

2.1 Company Overview

GLS Aluminium Industries Pvt. Ltd. is an industrial company operating in Rewari, Haryana. The company is engaged in aluminium manufacturing / aluminium product processing. The site is located in an industrial

and road-influenced setting, with surrounding agricultural and semi-urban land use.

The company has undertaken this biodiversity assessment as part of its sustainability, ASI and responsible environmental management commitment. The assessment supports the company in understanding biodiversity risk, documenting the land-use context, preparing biodiversity management controls and maintaining evidence for audit and customer review.



2.2 Operational Context

The operations of GLS are carried out within an established industrial site. The site includes built-up operational areas, production / processing areas, internal roads, utilities, storage areas, open areas, greenbelt / plantation areas, drainage / stormwater areas and housekeeping / waste interface areas.

The biodiversity relevance of the operation is limited. The industrial footprint does not overlap with any known protected area, natural wetland, forest habitat or high biodiversity ecosystem. Biodiversity management is therefore mainly linked to site-level environmental controls such as greenbelt maintenance, plant health, invasive weed prevention, drainage review, waste management and no-harm response to occasional common fauna or reptiles.

2.3 Site Location

The GLS site is located in Rewari district, Haryana. The approximate coordinates considered for the site are:

Latitude: 28.3195° N

Longitude: 76.6296° E

The site location maps show that GLS is located in a developed and road-connected area. Rewari city, nearby villages, road networks, industrial areas and agricultural land are visible in the surrounding landscape.

2.4 Land Area and Site Distribution

The total land area of the GLS site is 153,249 square metres. The land-use distribution provided for the assessment is as follows:

Land Use Component	Percentage	Approximate Area in sq. m	Approximate Area in hectares	Approximate Area in acres
Built-up / operational area	14%	21,455	2.1455	5.30
Greenbelt / open area	86%	131,794	13.1794	32.57
Total	100%	153,249	15.3249	37.87

The relatively large open / greenbelt area is positive from an environmental management perspective. However, this area is interpreted as a site-level greenbelt and open-area management zone, not as a natural biodiversity habitat. The limited physical survey did not identify any significant natural biodiversity feature within the site.

2.5 Surrounding Land Use

The surrounding land use includes agriculture, roads, semi-urban development, industrial activity, village / settlement interface and scattered vegetation. The site is not located in a remote ecological zone. It is part of a mixed developed and agricultural landscape.

This surrounding land-use context reduces the probability of significant biodiversity sensitivity at the site. The most relevant receptors are common birds, common insects, occasional reptiles, greenbelt vegetation, open areas, nearby agricultural land and drainage / housekeeping interfaces.

2.6 Biodiversity-Relevant Operational Interfaces

The main biodiversity-relevant operational interfaces at GLS are:

Greenbelt and plantation areas.

Open / unbuilt areas.

Drainage and stormwater points.

Waste and housekeeping areas.

Canteen / food waste interface.

Internal roads and vehicle movement.

Boundary areas.

Nearby agricultural land interface.

Security observation points.

Maintenance and utility areas.

These interfaces do not create high biodiversity risk, but they require basic annual monitoring.

2.7 Organisational Responsibilities

The following functions are relevant for biodiversity management at GLS:

Top Management is responsible for overall approval, management review and resource support.

EHS is responsible for biodiversity report maintenance, KPI review, incident recording and annual biodiversity review.

Admin is responsible for greenbelt, plantation, housekeeping and contractor coordination.

Maintenance is responsible for drainage, water stagnation and utility area controls.

Security is responsible for recording wildlife / reptile observations if any.

Housekeeping / canteen personnel are responsible for preventing waste and pest-attraction conditions.

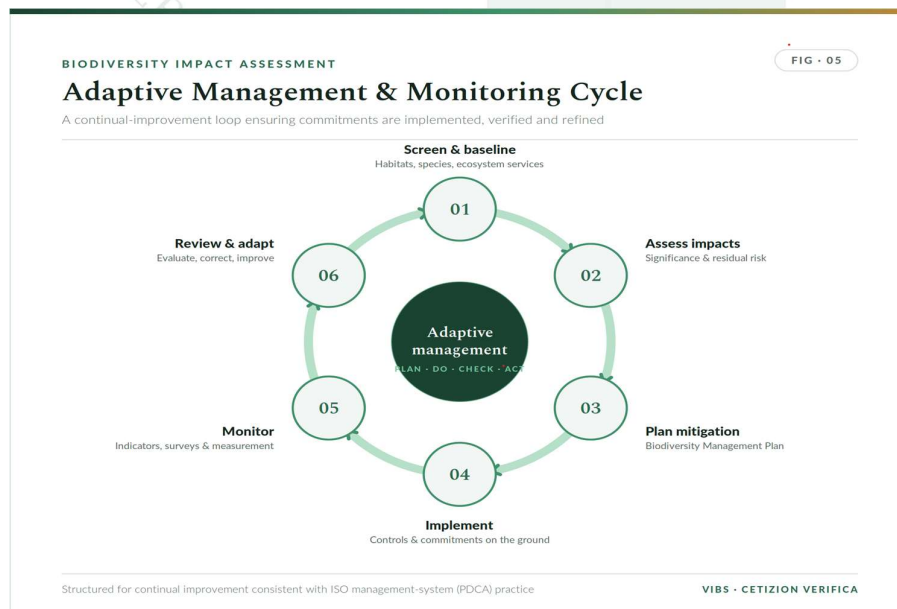
Gardeners support greenbelt maintenance, plant health observation and invasive weed control.

HR supports annual awareness or toolbox talk records.

2.8 Final Organisational Context Interpretation

The organisational and operational context confirms that GLS is a very low biodiversity risk industrial facility. Biodiversity risk is not driven by sensitive habitats or protected areas. Instead, it is linked to ordinary industrial site interfaces such as greenbelt, open area, drainage, waste, housekeeping and occasional common fauna observations.

Therefore, a simple annual biodiversity management system is appropriate for GLS. This approach is consistent with the site's actual risk profile and avoids unnecessary ecological complexity.



CHAPTER 03

Assessment Objectives and Scope

3.1 Purpose of the Assessment

The purpose of this biodiversity assessment is to evaluate the biodiversity risk, impact and management requirements associated with the operations of GLS Aluminium Industries Pvt. Ltd., Rewari, Haryana.

The assessment has been prepared as a practical, evidence-based and audit-ready study for ASI Performance Standard biodiversity requirements, GRI biodiversity disclosure readiness, customer sustainability review and internal management review. The purpose is not only to identify whether biodiversity risks exist, but also to determine the level of control, monitoring and management effort that is proportionate to the actual site condition.

The GLS site is located in a developed, road-influenced and agriculture-surrounded landscape near Rewari city. Therefore, the assessment has been designed to avoid unnecessary ecological complexity and to focus on actual site relevance. The limited physical survey, stakeholder consultation, available maps and flora/fauna rating work confirm that the site has very low biodiversity risk.

The assessment therefore supports a balanced conclusion: GLS does not require intensive biodiversity research or complex ecological restoration, but it should continue basic annual biodiversity management through greenbelt maintenance, invasive weed observation, drainage review, waste control, no-harm wildlife awareness and annual KPI review.

3.2 Main Objectives

The main objectives of this biodiversity assessment are:

To understand the biodiversity context of the GLS site and its immediate surroundings.

To determine whether the site is located in or near any protected area, Eco-Sensitive Zone, Ramsar wetland, forest habitat, wetland habitat or high biodiversity area.

To evaluate the site's land use, built-up area, greenbelt / open area and surrounding land-use conditions.

To identify site-relevant flora, fauna, pollinators, insects, reptiles, amphibians, mammals and invasive species based on available evidence and limited physical survey.

To assess whether any significant biodiversity feature exists within or immediately surrounding the GLS site.

To evaluate whether GLS operations have any direct, indirect or cumulative impact on biodiversity receptors.

To assess ecosystem services relevant to the site, including greenbelt, dust buffering, stormwater regulation, basic habitat value, nearby agriculture interface and waste / pest-attraction control.

To consult relevant stakeholders and understand whether any biodiversity-related concern exists from workers, security staff, gardeners, maintenance, nearby farmers, transport representatives or local community representatives.

To establish a proportionate biodiversity risk register and impact matrix.

To apply the biodiversity mitigation hierarchy in a practical manner.

To develop a Biodiversity Action Plan suitable for a very low biodiversity risk industrial site.

To establish simple annual biodiversity KPIs.

To prepare evidence for ASI and GRI biodiversity disclosure readiness.

3.3 Assessment Scope

The assessment scope covers the GLS Aluminium Industries Pvt. Ltd. site at Rewari, Haryana, including the plant boundary, built-up areas, greenbelt / open areas, drainage points, internal roads, storage areas, waste / housekeeping interfaces, canteen / pest-attraction interface and surrounding agricultural / road-influenced landscape.

The assessment considers both the direct operational boundary and the practical area of influence. The direct operational boundary includes areas under the control of GLS, while the area of influence includes nearby roads, agricultural land, semi-urban surroundings, nearby settlements, and regional protected / natural areas shown in the available maps.

The assessment does not cover upstream aluminium mining impacts, raw material extraction impacts, overseas biodiversity impacts, large landscape-level ecological modelling or multi-season scientific biodiversity inventory. Those topics are outside the scope of this site-level assessment and are not required for the current very low risk site context.

3.4 Spatial Scope

The spatial scope includes the following:

Plant boundary of GLS Aluminium Industries Pvt. Ltd.

Built-up and operational area.

Greenbelt and open area.

Internal roads and movement areas.

Drainage and water stagnation points.

Waste, scrap, canteen and housekeeping interface areas.

Boundary plantation and gate areas.

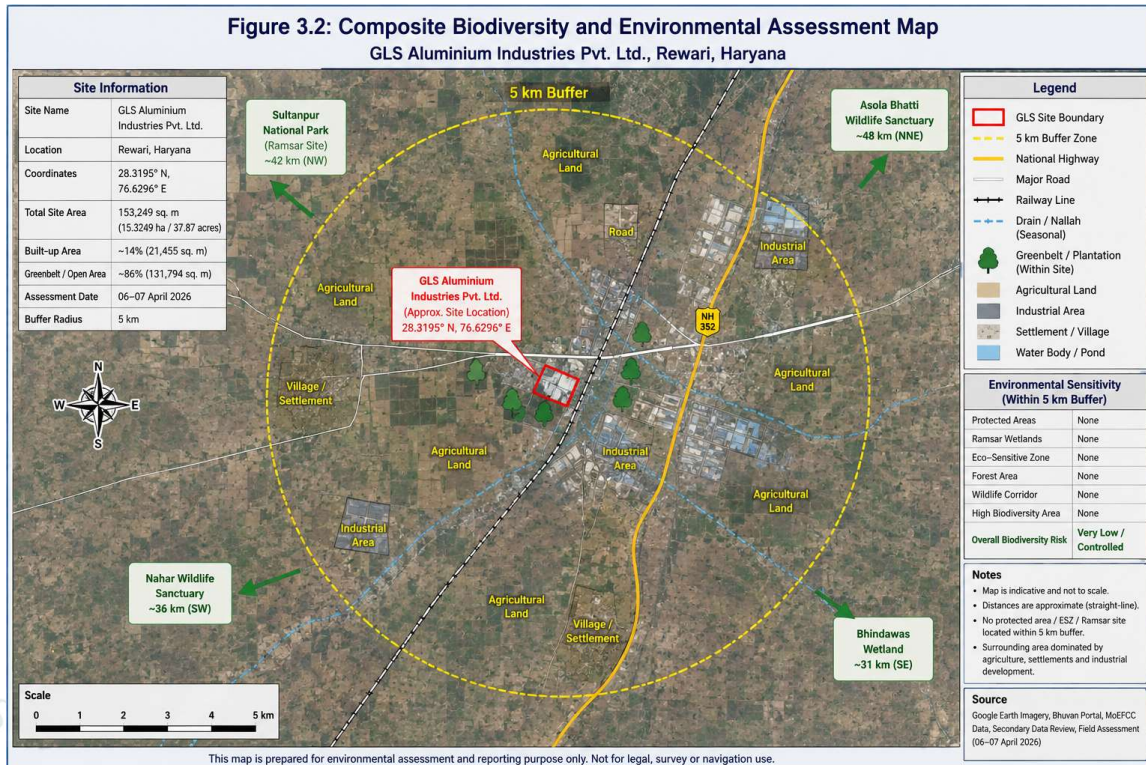
Nearby agricultural land.

Nearby roads and road-influenced surroundings.

Nearby settlements and Rewari city influence.

Regional protected / natural area context shown in available maps.

The available maps considered include the GLS regional protected / natural area distance map, GLS site coordinate map, composite biodiversity and environmental assessment map, buffer zone map, protected area distance map, land-use classification map, biodiversity impact map and Rewari district map.



3.5 Thematic Scope

The thematic scope of the assessment includes:

Land use and land cover.

Protected area / ESZ / Ramsar screening.

Flora and greenbelt.

Fauna and wildlife observation.

Birds, reptiles, mammals, amphibians, butterflies, pollinators and insects.

Alien, exotic and invasive species.

Ecosystem services.

Stakeholder consultation.

Biodiversity risk assessment.

Biodiversity impact assessment.

Mitigation hierarchy.

Biodiversity Action Plan.

Annual biodiversity KPI monitoring.

GRI 304 / GRI 101 disclosure readiness.

ASI 8.1 and 8.2 compliance mapping.

Data sources, assumptions and limitations.

3.6 Standards and Reference Framework

The report has been prepared with reference to the following frameworks:

ASI Performance Standard V3.1 biodiversity requirements.

GRI 304: Biodiversity 2016.

GRI 101: Biodiversity 2024 transition readiness.

Biodiversity mitigation hierarchy principles.

Good industrial environmental management practice.

Government / official protected-area and biodiversity screening references.

Site-level GIS / map evidence.

Stakeholder consultation and limited physical survey evidence.

The report does not attempt to present itself as a protected-area ecological management plan or formal statutory biodiversity clearance study. It is a site-level biodiversity risk and management assessment appropriate for an industrial site with very low biodiversity risk.

3.7 Methodology Overview

The assessment methodology followed a practical and structured sequence.

First, the site context was reviewed. This included site location, land area, built-up area, greenbelt / open area and surrounding land-use setting.

Second, available maps were reviewed to understand site coordinates, road influence, agriculture interface, protected / natural area distance and buffer context.

Third, government and official source screening was considered for protected areas, Ramsar wetlands, Eco-Sensitive Zones and biodiversity governance.

Fourth, a limited physical site survey was conducted to understand whether significant biodiversity features are present within or immediately surrounding the site.

Fifth, flora and fauna photo-reference rating exercises were conducted. The rating was interpreted as site-relevance rating, not conservation-status rating.

Sixth, stakeholder consultation was conducted with site and local stakeholders to identify any biodiversity concern, wildlife observation, invasive weed issue, drainage concern, pest issue, crop concern or community concern.

Seventh, the biodiversity risk register and impact matrix were prepared using a very low risk site approach.

Eighth, mitigation hierarchy and Biodiversity Action Plan were developed in a proportionate manner.

Finally, annual biodiversity KPIs were established for simple monitoring and management review.

3.8 Consultation Scope

Stakeholder consultation included internal and external stakeholders who are practically relevant to site biodiversity observation.

The consultation covered:

Security personnel.

Gardeners.

Housekeeping and canteen interface personnel.

Maintenance personnel.

Production, maintenance, utility, store and admin workers.

Nearby farmer representatives.

Nearby resident / local representative.

Transport representative.

Panchayat / local community representative.

The consultation was conducted on 06.04.2026 and 07.04.2026. No material biodiversity concern was reported during the consultation process.

3.9 Rating Scope

The flora and fauna rating exercise was used to understand site relevance of different species and groups. It was not used as a conservation-status assessment.

The rating conversion used was:

Original Rating	Final Report Rating	Interpretation
0	1	Very low / rare / not significant for GLS site
1	2	Low / possible / occasional regional relevance
2	3	Common / more relevant to disturbed, agricultural, roadside or plantation context

This rating helped to confirm that most flora and fauna groups have very low to low site relevance. Common urban, roadside, agricultural and greenbelt-related species may occur, but no high biodiversity feature was identified.

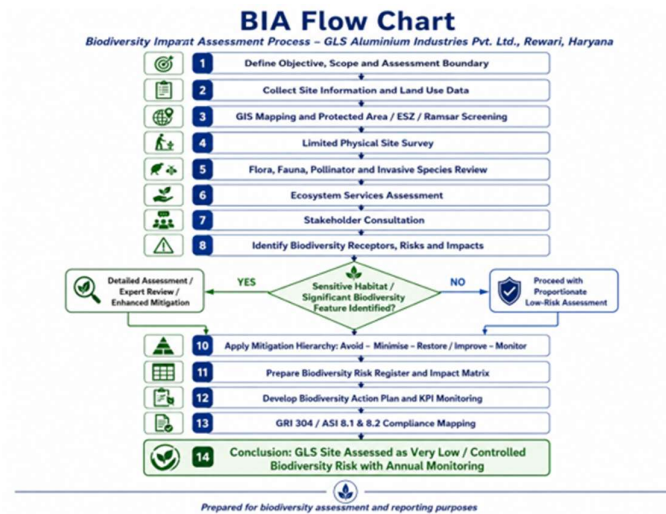
3.10 Exclusions

The following are excluded from the current assessment:

Detailed multi-season ecological research.

Long-term biodiversity population monitoring.

Forest inventory study.



Wetland ecological study.

Aquatic biodiversity study.

Protected-area management plan.

Wildlife corridor study.

Remote landscape modelling.

Upstream mining biodiversity impact assessment.

Full value-chain biodiversity footprinting.

Taxonomic confirmation of every listed species.

These exclusions are reasonable because

the GLS site has been assessed as very low biodiversity risk and does not contain significant habitat requiring intensive ecological investigation.

3.11 Assessment Boundary Limitation

The assessment is based on available maps, limited physical survey and stakeholder consultation. It provides a reliable site-level conclusion for current biodiversity risk. However, if future expansion, major construction, new land use, major drainage change, large tree removal, protected species sighting or biodiversity complaint occurs, the assessment should be reviewed.

3.12 Chapter Conclusion

The scope and methodology of this assessment are proportionate to the GLS site condition. The report has been prepared using systematic evidence, but without unnecessary ecological overstatement. The site has been assessed as very low biodiversity risk, and the assessment scope is adequate for ASI biodiversity compliance readiness, GRI biodiversity disclosure support and internal annual monitoring.

CHAPTER 04

Site and Land Use Characteristics

4.1 Introduction

Understanding site and land-use characteristics is essential for biodiversity risk assessment. Biodiversity risk depends strongly on where the site is located, what type of land use surrounds it, whether the site contains natural habitats, and whether any protected area, wetland, forest, river, grassland, wildlife corridor or high biodiversity receptor is present within or near the site.

The GLS site is located in Rewari district, Haryana. The surrounding area is influenced by roads, agriculture, industrial development and semi-urban land use. This landscape context is very important because it indicates that the site is not situated within a high-sensitivity ecological setting.

The land-use data provided for the site shows that the total land area is 153,249 square metres. Approximately 14 percent is built-up and approximately 86 percent is greenbelt / open area. While the greenbelt and open area are positive from an environmental management perspective, they are not interpreted as high biodiversity natural habitat. They are considered site-level plantation / open-area management zones.

4.2 Site Land Area

The total land area of GLS Aluminium Industries Pvt. Ltd. is 153,249 square metres. This is equivalent to 15.3249 hectares or approximately 37.87 acres.

The site land-use distribution is as follows:

Sr. No.	Land Use Component	Percentage	Area in sq. m	Area in hectares	Area in acres	Biodiversity Interpretation
1	Built-up / operational area	14%	21,455	2.1455	5.30	Industrial footprint with very low biodiversity value
2	Greenbelt / open area	86%	131,794	13.1794	32.57	Positive environmental buffer and site-level open-area management zone
3	Total land area	100%	153,249	15.3249	37.87	Very low biodiversity risk industrial site

[Insert Table Formatting Note: Format land-use tables in 8 pt font in final Word version]

4.3 Interpretation of Land Area

The land-area distribution shows that the GLS site has a relatively large open / greenbelt area. This supports site-level environmental management and provides scope for plantation maintenance, dust buffering, shade, visual improvement, invasive weed control and annual biodiversity observation.

However, the greenbelt / open area should not be overstated as a natural biodiversity habitat. The limited physical survey did not identify forest habitat, wetland habitat, rare flora patch, natural grassland, protected habitat or high biodiversity ecosystem within the site. Therefore, the site-level open area is managed as an environmental buffer, not as a natural conservation area.

This distinction is important for audit defensibility. The report recognises the positive value of greenbelt but avoids unsupported claims of high biodiversity value.

4.4 Built-up Area

The built-up area is approximately 14 percent of the site, equivalent to approximately 21,455 square metres. This includes production / operational buildings, utility areas, office or administrative areas, storage areas, internal operational areas and supporting infrastructure.

From a biodiversity perspective, the built-up area has very low biodiversity value. It is an industrial footprint with limited ecological function. Biodiversity management in this area is mainly linked to housekeeping, waste control, pest prevention, spill prevention and avoiding creation of shelter conditions for rodents or reptiles.

4.5 Greenbelt and Open Area

The greenbelt / open area is approximately 86 percent of the site, equivalent to approximately 131,794 square metres. This area is important for the site's environmental management.

The greenbelt and open area can support:

Plantation and tree cover.

Dust buffering.

Shade and microclimate improvement.

Visual screening.

Limited common bird and insect presence.

Pollinator-friendly plantation where feasible.

Basic soil and open-area function.

Invasive weed observation.

Annual plant health monitoring.

The greenbelt / open area does not require intensive ecological monitoring. Annual inspection and management review are adequate.



4.6 Surrounding Land Use

The surrounding land use is mixed and includes agricultural land, road networks, nearby settlements, semi-urban development, industrial pockets and open land. The site is influenced by Rewari city and major road connectivity.

The available maps show the presence of road infrastructure such as Rewari Bypass Road and Dharuhera–Rewari Road. Nearby settlements and industrial / agricultural surroundings are also visible.

This land-use setting supports the very low biodiversity risk conclusion because the site is located in a disturbed and developed landscape rather than a natural habitat.

4.7 Road and Highway Influence

The site is located in a road-influenced setting. Road and highway influence generally reduces habitat sensitivity because the area is already disturbed by traffic, built-up development, noise, dust, lighting and human movement.

For GLS, road influence means that the biodiversity receptors likely to occur are common and disturbance-tolerant species. These may include common birds, insects, rodents, lizards and occasional reptiles. No evidence was found to indicate that the site forms part of a sensitive wildlife corridor.

The road influence also means that site management should maintain safe vehicle movement, housekeeping and dust control, but no specialised wildlife corridor management is required.

4.8 Agricultural Interface

Agriculture exists in the surrounding landscape. Nearby agricultural land is relevant from an ecosystem service perspective because agriculture may be linked to soil, water, pollination, dust and drainage concerns.

During stakeholder consultation, no material biodiversity concern was raised by nearby farmer representatives. No significant crop-related biodiversity concern, dust impact concern, drainage concern or pollination concern was reported.

Therefore, the agricultural interface is considered low risk. The appropriate control is to maintain routine dust, drainage, housekeeping and waste management controls and record any future concern if raised.

4.9 Settlement and City Influence

The site is near Rewari city and local settlement influence. This indicates that the surrounding landscape is semi-urban and developed. Such areas generally support common urban and agricultural species rather than sensitive ecological communities.

The presence of settlements also means that stakeholder communication and grievance recording remain useful. However, no material biodiversity concern was reported by nearby resident or community representatives during the consultation process.

4.10 Internal Biodiversity-Relevant Zones

The site can be divided into the following biodiversity-relevant management zones:

Zone	Description	Biodiversity Relevance	Monitoring Requirement
Zone A – Built-up / Operational Zone	Production, office, utilities and paved areas	Very low biodiversity value	Annual environmental review
Zone B – Greenbelt Zone	Plantation, trees and landscaped areas	Positive site-level environmental buffer	Annual greenbelt review
Zone C – Open Area Zone	Open / unbuilt area	Weed, housekeeping and plantation relevance	Annual review
Zone D – Drainage / Stormwater Zone	Drains and water flow / stagnation points	Stagnation / weed / nuisance control	Annual, preferably monsoon-linked
Zone E – Traffic / Movement Zone	Internal roads, access and loading areas	Dust and movement interface	Annual review
Zone F – Waste / Housekeeping Zone	Waste, scrap, canteen and housekeeping areas	Pest-attraction prevention	Annual review
Zone G – External Interface Zone	Nearby agriculture, roads and settlements	Low ecosystem service interface	Review if concern arises

4.11 Land Use and Biodiversity Receptors

The following biodiversity receptors were identified as relevant at a very low-risk level:

Sr. No.	Biodiversity Receptor	Site Status	Relevance
1	Greenbelt / planted trees	Present	Annual maintenance required
2	Open area	Present	Weed and housekeeping review required
3	Common birds	May occur	Observation-based relevance only

4	Common insects / pollinators	May occur	Low relevance; greenbelt support
5	Reptiles / snakes	Possible occasional occurrence	No-harm response required
6	Rodents / pest fauna	Possible if housekeeping weak	Waste control required
7	Invasive weeds	Watch-list	Annual observation required
8	Drainage / stagnation points	Site maintenance issue	Annual review required
9	Nearby agriculture	Present nearby	Low ecosystem service interface
10	Protected areas	Away from site	No direct impact pathway identified

4.12 Limited Physical Survey Finding

The limited physical survey did not identify any significant biodiversity feature within or immediately surrounding the GLS site.

The following were not observed as significant site features:

Forest habitat.

Wetland habitat.

Natural grassland habitat.

Protected habitat.

Rare flora patch.

Significant wildlife movement.

Wildlife corridor.

Major invasive species spread.

Material drainage-linked biodiversity issue.

Significant pollinator habitat requiring special management.

This finding supports the very low biodiversity risk classification.

4.13 Land Use Risk Interpretation

The land use and site context indicate that the GLS site is a very low biodiversity risk industrial site. The main management needs are not related to sensitive habitat protection, but to basic environmental maintenance.

The relevant management actions are:

Maintain greenbelt.

Prefer native / locally suitable species in future plantation.

Review plant health annually.

Review invasive weeds annually.

Maintain housekeeping and waste control.

Review drainage / water stagnation annually.

Record wildlife / reptile observations if any.

Maintain basic biodiversity awareness.

4.14 Chapter Conclusion

The site and land-use characteristics confirm that GLS Aluminium Industries Pvt. Ltd. is located in a developed, road-influenced, agriculture-surrounded and semi-urban industrial landscape near Rewari. The site has a large greenbelt / open area, but no significant natural habitat has been identified.

The land-use assessment supports the classification of GLS as a very low biodiversity risk industrial site. Annual monitoring and routine management controls are adequate



GLS BIODIVERSITY IMPACT ASSESSMENT REPORT

CHAPTER 05

Protected Area / ESZ / Ramsar / Ecological Sensitivity Screening

5.1 Introduction

Protected area, Eco-Sensitive Zone, Ramsar wetland and ecological sensitivity screening is an important part of biodiversity assessment. The purpose of this chapter is to determine whether the GLS site is located within or near any protected area, forest, wetland, Ramsar site, Eco-Sensitive Zone or high biodiversity area.

The screening has been carried out using available GLS maps, site coordinate information, land-use context, regional protected / natural area distance maps, Rewari district context and limited physical survey findings.

The screening confirms that GLS is not located inside a National Park, Wildlife Sanctuary, Ramsar wetland, forest habitat, wetland habitat or protected habitat. No direct operation-linked impact on protected / natural areas has been identified.

5.2 Screening Basis

The screening is based on:

Available GLS regional protected / natural area distance map.

Available GLS site coordinate and surrounding land-use map.

Available composite biodiversity and environmental assessment map.

Available buffer zone map.

Available protected-area distance map.

Available land-use classification map.

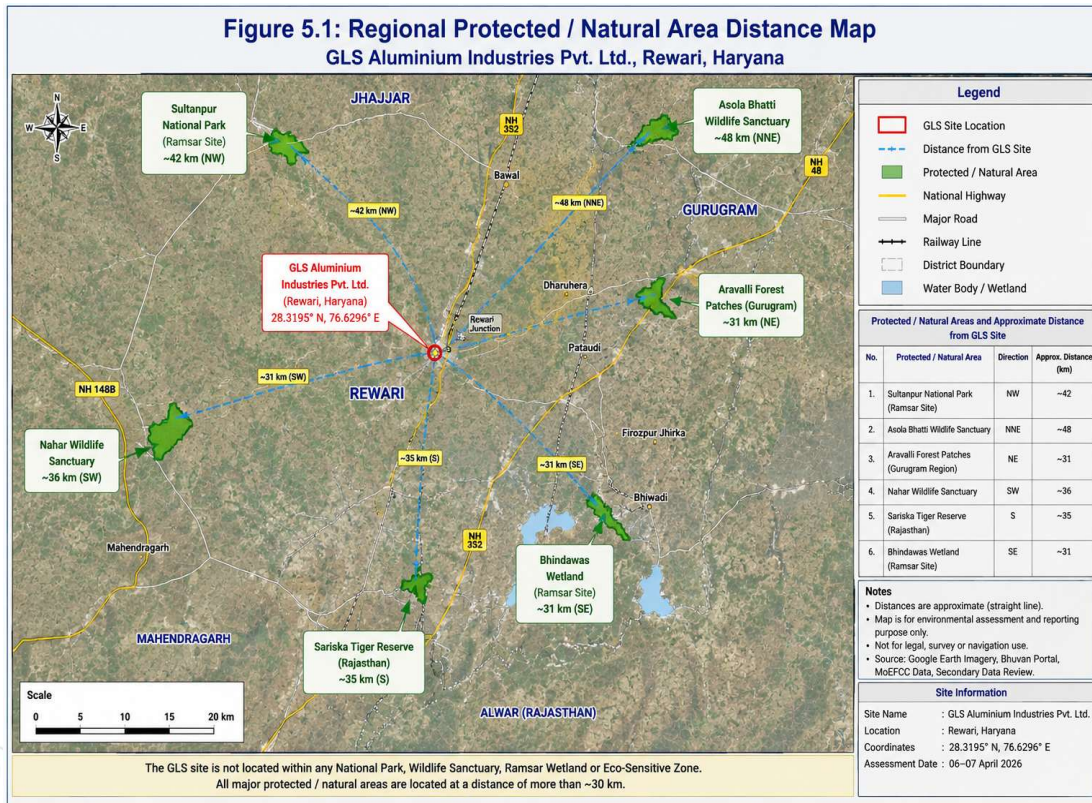
Available biodiversity impact map.

Available Rewari district map.

Government / official protected-area context considered during the assessment.

Limited physical site survey.

Stakeholder consultation findings.



[Figure 5.1: Regional Protected / Natural Area Distance Map]

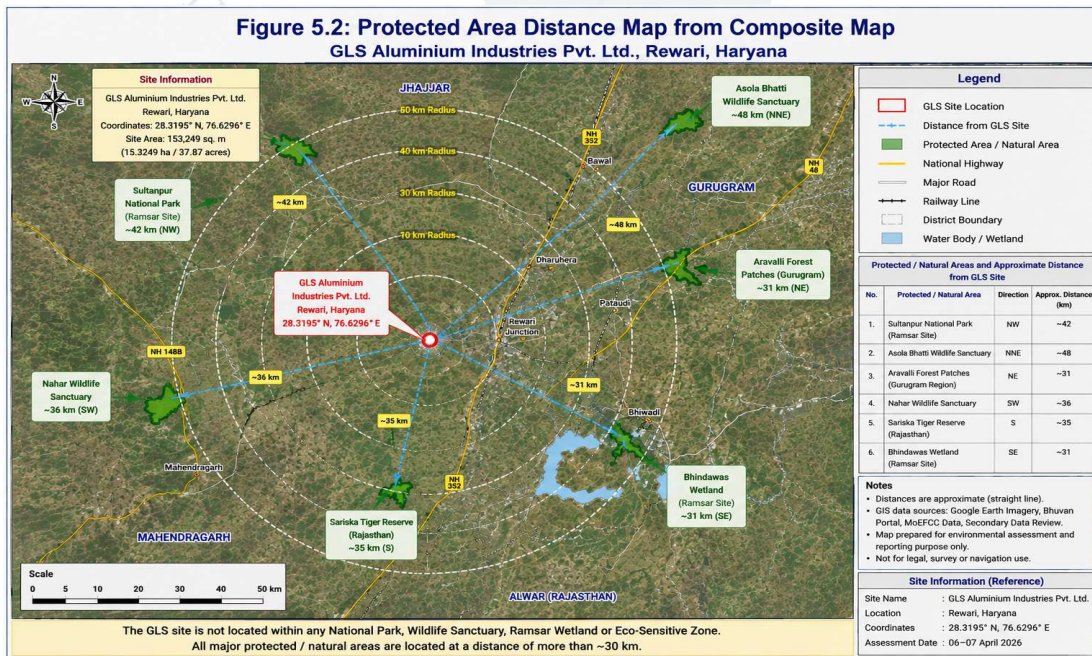


Figure 5.2: Protected Area Distance Map from Composite Map

5.3 Site Considered for Screening

Particular	Details
Company	GLS Aluminium Industries Pvt. Ltd.
Site Location	Rewari, Haryana
Approximate Coordinates	28.3195° N, 76.6296° E
Total Land Area	153,249 sq. m
Built-up Area	Approx. 21,455 sq. m / 14%
Greenbelt / Open Area	Approx. 131,794 sq. m / 86%
Site Setting	Road-influenced, agriculture-surrounded, semi-urban / industrial landscape
Limited Physical Survey Result	No significant biodiversity feature observed
Biodiversity Risk Classification	Very Low

5.4 Available Protected / Natural Area Map Interpretation

The available regional protected / natural area map shows GLS in relation to Sultanpur National Park, Asola Bhatti Wildlife Sanctuary and Aravalli forest patches / Gurugram. The map indicates that these protected / natural areas are located away from the GLS site.

Another composite map also shows protected-area distance references. Some approximate distances differ slightly between map plates; therefore, the report treats the distances as map-based approximate values rather than exact legal survey distances. This is acceptable for screening because all mapped protected / natural areas are located away from the GLS operational site and no direct impact pathway is identified.

5.5 Protected / Natural Area Screening Table

Sr. No.	Protected / Natural Area	Type / Status	Approximate Distance from GLS as per Available Maps	Screening Interpretation
1	Sultanpur National Park	National Park / Ramsar wetland	Approx. 26–30 km	Located away from GLS; no direct operation-linked impact identified
2	Asola Bhatti Wildlife Sanctuary	Wildlife Sanctuary / natural area	Approx. 51–56 km	Located far from GLS; no direct operation-linked impact identified
3	Aravalli Forest Patches / Gurugram side	Fragmented natural / forest patches	Approx. 51–57 km	Regional ecological context only; no direct site-level impact identified

4	Nahar Wildlife Sanctuary	District-level protected-area reference for Rewari	Considered through government / official screening	No direct site-level impact identified from current GLS operations
5	Bhindawas / other Haryana wetland context	State-level wetland context	Regional reference only	No direct hydrological or operational linkage identified

5.6 National Park Screening

The screening confirms that the GLS site is not located within a National Park. Sultanpur National Park is shown in the regional map at an approximate distance of 26–30 km from GLS, depending on the available map reference. It is a regional wetland / protected-area receptor, not an immediate site-level receptor.

No direct operational impact pathway from GLS to Sultanpur National Park has been identified. The site does not discharge into or physically connect with the National Park based on the available assessment.

5.7 Wildlife Sanctuary Screening

The screening confirms that GLS is not located within a Wildlife Sanctuary. Asola Bhatti Wildlife Sanctuary is shown at a substantial distance from the site, approximately 51–56 km as per available map references. Nahar Wildlife Sanctuary has been considered as a district-level protected-area reference, but no direct site-level sensitivity has been identified for GLS.

The current GLS operations do not indicate direct impact on any Wildlife Sanctuary.

5.8 Ramsar Wetland Screening

The Ramsar screening considered Sultanpur National Park as a regional Ramsar / wetland receptor. The available maps show it away from GLS. No wetland habitat was found within the GLS site during the limited physical survey.

The screening concludes:

GLS is not located inside a Ramsar wetland.

No Ramsar wetland habitat exists within the GLS operational boundary.

No direct hydrological linkage to a Ramsar wetland has been identified.

Ramsar-related biodiversity risk is very low.

5.9 Eco-Sensitive Zone Screening

Eco-Sensitive Zone screening was undertaken as part of the protected-area review. The available maps do not show GLS within any protected area or ESZ. Protected / natural areas are located away from the site.

No ESZ-related operational restriction has been identified based on the available screening. The site is therefore treated as very low ESZ risk. The report maintains protected-area screening evidence as part of audit documentation.

5.10 Forest Habitat Screening

The limited physical survey did not identify any forest habitat within the GLS site. The available land-use and satellite map references show the site within a developed / road-influenced / agricultural landscape rather than a forest landscape.

No forest diversion, forest habitat occupation or forest-edge biodiversity sensitivity has been identified.

5.11 Wetland Habitat Screening

No natural wetland habitat was identified within the GLS site during limited physical survey. Drainage or stormwater areas within industrial premises are not treated as natural wetlands. They are managed as routine site maintenance areas.

The biodiversity management requirement for drainage is simple: annual drain review, water stagnation control and housekeeping.

5.12 High Biodiversity Area Screening

No high biodiversity area was identified within or immediately surrounding the GLS site. The site is not a natural habitat site. It is an established industrial facility in a developed and agriculture-influenced landscape.

The high biodiversity area screening conclusion is very low risk.

5.13 Screening Questions and Answers

Screening Question	Screening Result
Is GLS located inside a National Park?	No
Is GLS located inside a Wildlife Sanctuary?	No
Is GLS located inside a Ramsar wetland?	No
Is GLS located inside a notified forest habitat?	No
Is GLS located inside a natural wetland habitat?	No
Is GLS located inside a high biodiversity habitat?	No
Was any protected habitat identified within the site?	No
Was any significant biodiversity feature identified during limited physical survey?	No
Are regional protected / natural areas located away from the site?	Yes
Is direct operation-linked impact on protected / natural areas identified?	No
Overall ecological sensitivity	Very Low

5.14 Protected Area / ESZ / Ramsar Risk Matrix

Sr. No.	Receptor / Area	Potential Impact Pathway	Likelihood	Severity	Risk Level	Control / Monitoring

1	Sultanpur National Park / Ramsar site	Direct operational impact	Rare	Low	Very Low	Maintain map screening record
2	Asola Bhatti Wildlife Sanctuary	Direct operational impact	Rare	Low	Very Low	Maintain map screening record
3	Aravalli forest patches	Direct operational impact	Rare	Low	Very Low	Maintain regional screening record
4	Nahar Wildlife Sanctuary district context	Direct site impact	Rare	Low	Very Low	Maintain government-source screening record
5	Local wetland within site	Not applicable	Not applicable	Not applicable	Not applicable	No wetland identified
6	Local forest within site	Not applicable	Not applicable	Not applicable	Not applicable	No forest identified
7	Greenbelt / open area	Site-level maintenance impact	Possible	Low	Low	Annual greenbelt review
8	Drainage / water stagnation	Local nuisance pathway	Possible	Low	Low	Annual drain review
9	Common fauna / reptiles	Occasional interface	Possible	Low	Low	No-harm instruction and observation record

5.15 GRI 304-1 Screening Interpretation

GRI 304-1 requires disclosure of operational sites owned, leased or managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas.

For GLS, the screening conclusion is:

The site location is identified.

The total site land area is known.

The built-up and greenbelt / open area distribution is known.

The site is not inside a National Park.

The site is not inside a Wildlife Sanctuary.

The site is not inside a Ramsar wetland.

The site is not inside a forest or natural wetland habitat.

The site is not located in a high biodiversity habitat.

The site is located in a road-influenced, agriculture-surrounded and semi-urban / industrial landscape.

The overall biodiversity sensitivity is very low.

5.16 Ecological Sensitivity Conclusion

The ecological sensitivity screening confirms that GLS Aluminium Industries Pvt. Ltd. has very low protected-area, ESZ and Ramsar risk.

This conclusion is based on:

Available protected / natural area maps.

Site coordinate map.

Land-use classification map.

Rewari district location context.

Limited physical site survey.

Stakeholder consultation.

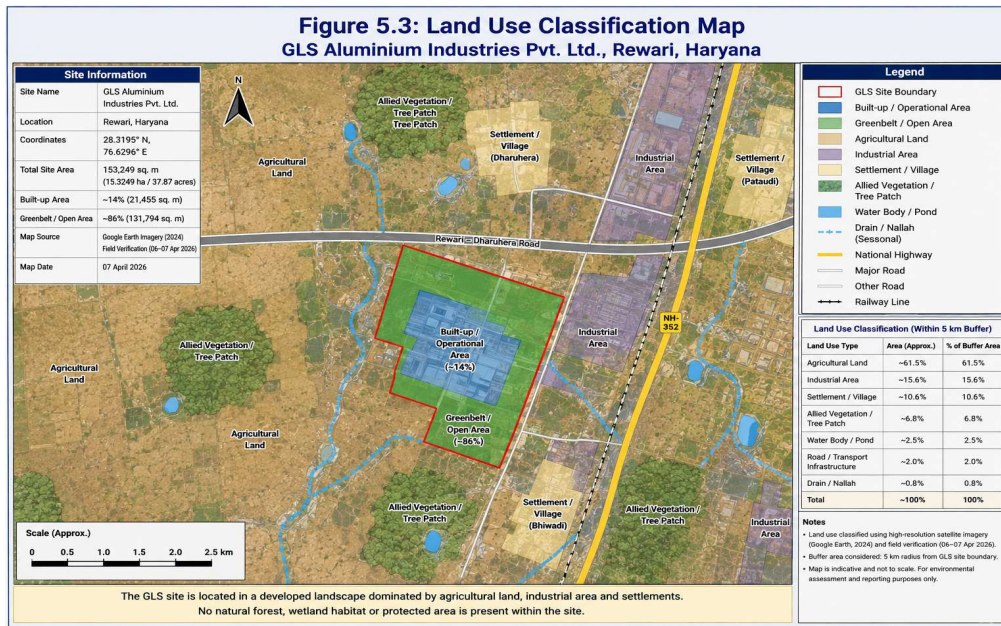
No significant biodiversity habitat found within or immediately surrounding the site.

The mapped regional protected / natural areas are away from GLS. No direct operation-linked impact pathway has been identified. Therefore, no special protected-area-specific biodiversity control is required beyond maintaining screening evidence, annual biodiversity review and no-harm wildlife awareness.

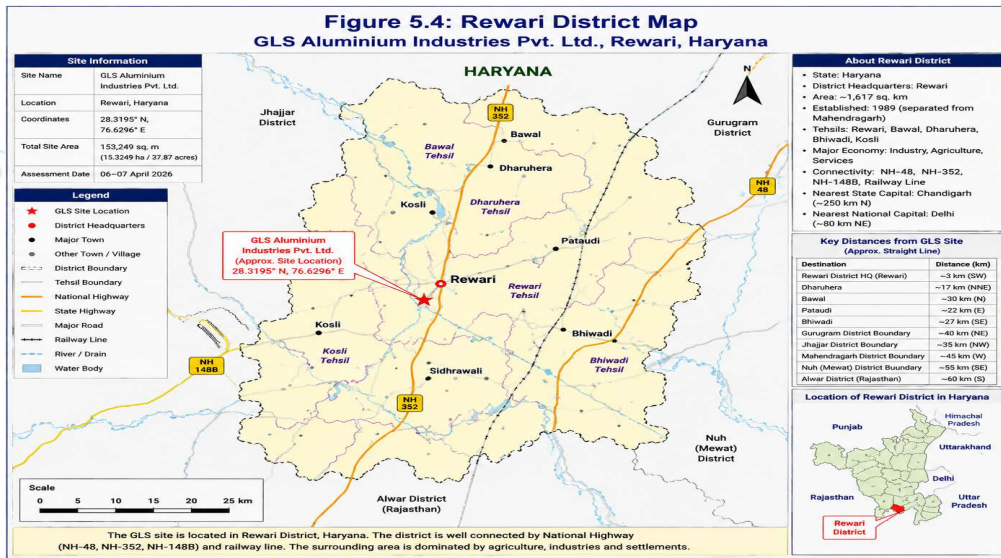
5.17 Chapter Conclusion

Protected area / ESZ / Ramsar / ecological sensitivity screening confirms that GLS is a very low biodiversity risk industrial site. The site is not located inside a protected area, Ramsar wetland, forest habitat, wetland habitat or high biodiversity habitat. The available maps and limited physical survey support this conclusion.

Annual monitoring is adequate. The focus should remain on greenbelt maintenance, drainage review, waste control, invasive weed observation, no-harm wildlife approach and annual biodiversity management review.



[Insert Figure



CHAPTER 06

Ecosystem Services Assessment

6.1 Introduction

Ecosystem services are the benefits that people, organisations and communities receive from nature. In an industrial biodiversity assessment, ecosystem services are reviewed to understand whether the company depends on natural systems, whether the company affects any ecosystem service used by nearby communities, and whether any biodiversity-related concern may arise from water, land, vegetation, agriculture, drainage, pollination, soil, shade, dust buffering, waste control or local biodiversity.

For GLS Aluminium Industries Pvt. Ltd., the ecosystem services assessment has been carried out in a practical manner. The site is located near Rewari city, road / highway influence, agricultural land and semi-urban / industrial surroundings. It is not located in a forest, wetland, protected area or high biodiversity habitat. The limited physical survey did not identify any significant ecosystem service dependency or high biodiversity ecosystem service within or immediately surrounding the site.

The ecosystem services relevant to GLS are therefore limited and site-level in nature. They are mainly related to greenbelt, open area, dust buffering, shade, microclimate, drainage, waste control, pest prevention, common fauna observation and nearby agricultural interface. These services do not create high biodiversity risk. Annual monitoring is adequate.

6.2 Purpose of Ecosystem Services Assessment

The purpose of this chapter is to identify and assess the ecosystem services relevant to the GLS site and its surroundings.

The assessment supports the following:

Understanding whether any important ecosystem service is present within or near the site.

Understanding whether local stakeholders depend on ecosystem services that may be affected by GLS operations.

Understanding whether GLS depends on ecosystem services for its operations.

Identifying whether there are any biodiversity-related community concerns.

Supporting ASI Performance Standard biodiversity and ecosystem services requirements.

Supporting GRI 304 and GRI 101 biodiversity disclosure readiness.

Supporting a proportionate Biodiversity Action Plan and annual KPI monitoring system.

6.3 Site Context for Ecosystem Services

The GLS site is an established industrial facility. The surrounding area is not a natural ecosystem landscape. It is influenced by roads, Rewari city, nearby villages, agricultural land, industrial areas and semi-urban development.

The site has approximately 86 percent greenbelt / open area. This provides a positive site-level environmental function, but it is not a high biodiversity natural habitat. The open and planted areas can support shade, dust buffering, plantation value, minor pollinator support and basic visual improvement.

The site does not contain a natural wetland, forest patch, riverine habitat, protected species habitat or major wildlife movement corridor. Therefore, ecosystem service risk is assessed as very low.

6.4 Ecosystem Services Classification

The ecosystem services considered in the assessment are grouped into four categories.

Category	Meaning	Relevance to GLS
Provisioning services	Material resources obtained from nature such as water, food, fodder, fuelwood and plant resources	Low relevance; mainly normal water use and nearby agriculture context
Regulating services	Benefits from regulation of natural processes such as dust buffering, stormwater regulation, shade and microclimate	Relevant mainly through greenbelt, open area and drainage management
Cultural services	Non-material benefits such as aesthetics, worker wellbeing, cultural plants and awareness	Relevant mainly through greenbelt, landscaping and environmental awareness
Supporting services	Ecological functions that support habitats, soil, pollinators and common biodiversity	Low relevance; limited to greenbelt, open area and common insects / birds

6.5 Ecosystem Services Area of Influence

The area of influence for ecosystem services is limited to the practical site and nearby surroundings.

Sr. No.	Area / Zone	Ecosystem Service Relevance	Assessment Outcome
1	Plant boundary	Greenbelt, open area, drainage, waste and housekeeping	Relevant for annual internal monitoring
2	Built-up / operational area	Industrial footprint	Very low ecosystem value
3	Greenbelt / open area	Dust buffering, shade, plant health, common insects and birds	Positive site-level service
4	Drainage / stormwater points	Stormwater regulation and stagnation prevention	Annual review adequate
5	Waste / canteen / housekeeping areas	Pest and scavenger attraction if unmanaged	Controlled through housekeeping
6	Nearby agricultural land	Possible dust, drainage and ecosystem service interface	No material concern reported
7	Nearby road / highway	Developed / disturbed setting	Confirms low ecological sensitivity

8	Nearby settlement / Rewari influence	Semi-urban context	No high ecosystem service concern identified
9	Regional protected / natural areas	Located away from site	No direct ecosystem service impact identified

6.6 Provisioning Services Assessment

Provisioning services are ecosystem goods or resources used by people or organisations. For GLS, provisioning services are limited because aluminium manufacturing does not directly depend on crops, wild plants, fodder, fuelwood, fishery, forest products or wild biological resources.

The main provisioning service relevant to the site is water availability for normal industrial and domestic use. Nearby agriculture exists in the surrounding landscape, but the limited site survey and stakeholder consultation did not identify any material impact on agricultural provisioning services.

Sr. No.	Provisioning Service	Relevance to GLS	Dependency Level	Impact Potential	Risk Level	Management Approach
1	Water availability	Used for normal industrial / domestic purposes	Medium	Low if responsibly managed	Low	Maintain responsible water use and annual review
2	Agricultural crop production	Nearby agriculture exists	No direct dependency	Low; no material concern reported	Low	Maintain dust, drainage and housekeeping controls
3	Fodder / grazing	No site-level dependency identified	Very low	Very low	Very low	No special action required
4	Fuelwood / timber	No dependency identified	Very low	Very low	Very low	Avoid unnecessary tree cutting
5	Medicinal plants	No material site-level relevance identified	Very low	Very low	Very low	No separate monitoring required
6	Fruit / plant resources	Not relevant to operations	Very low	Very low	Very low	May be considered only as plantation value

6.7 Regulating Services Assessment

Regulating services are the natural processes that help maintain environmental quality. At GLS, the most relevant regulating services are dust buffering by greenbelt, microclimate support by plantation, stormwater regulation by drainage and open areas, and pest regulation through housekeeping controls.

These services are useful, but they are not high-risk biodiversity services. They can be managed through annual internal review.

Sr. No.	Regulating Service	Site Relevance	Risk Level	Management Requirement
1	Dust buffering	Greenbelt helps reduce dust and visual impact	Low	Maintain greenbelt
2	Microclimate and shade	Trees and open areas support local cooling	Low	Maintain plant health
3	Stormwater regulation	Drainage and open areas help manage runoff	Low	Annual drain / stagnation review
4	Groundwater recharge	Open areas may provide limited infiltration	Low	Maintain open area where feasible
5	Pollination	Limited relevance through greenbelt and nearby agriculture	Very low to low	Maintain suitable flowering plants where feasible
6	Pest regulation	Waste control reduces pest attraction	Low	Maintain housekeeping and pest-control records
7	Noise and wind buffering	Greenbelt may provide minor buffer	Low	Maintain plantation
8	Invasive weed control	Prevents deterioration of open / greenbelt areas	Low	Annual weed inspection

6.8 Cultural Services Assessment

Cultural ecosystem services are non-material benefits such as aesthetics, green surroundings, awareness, worker wellbeing and cultural value of trees. At GLS, cultural services are limited but positive.

The greenbelt and plantation areas support visual improvement and worker comfort. Some tree species may also have cultural or traditional value. However, no sacred grove, culturally protected tree cluster or community cultural biodiversity concern was identified during the limited survey or stakeholder consultation.

Sr. No.	Cultural Service	Relevance to GLS	Risk Level	Management Approach
1	Greenbelt aesthetics	Supports site appearance and workplace environment	Low	Maintain greenbelt
2	Worker wellbeing	Shade and greenery support comfort	Low	Maintain trees and landscaped areas
3	Biodiversity awareness	Supports no-harm behaviour	Low	Annual awareness / toolbox talk
4	Cultural trees	No specific issue identified	Very low	Avoid unnecessary tree cutting
5	Local ecological knowledge	No material dependency identified	Very low	Record concern if raised

6.9 Supporting Services Assessment

Supporting services include soil function, plant growth, habitat provision, pollinator support and ecological connectivity. At GLS, these services are limited to greenbelt and open-area management.

No major natural habitat or ecological corridor was identified. Therefore, supporting services are considered very low to low relevance.

Sr. No.	Supporting Service	Relevance to GLS	Risk Level	Management Approach
1	Soil function	Relevant in greenbelt and open areas	Low	Maintain ground cover and avoid poor housekeeping
2	Nutrient cycling	Limited to plantation and open areas	Very low	Maintain greenbelt naturally where feasible
3	Habitat provision	Limited to common birds, insects and small fauna	Low	Maintain plantation and avoid wildlife harm
4	Pollinator habitat	Limited relevance	Very low to low	Maintain suitable plants where feasible
5	Ecological connectivity	Not significant due to road / city / industrial setting	Very low	No special action required

6	Plant regeneration	Limited to plantation management	Low	Replace weak / dead plants
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6.10 Ecosystem Dependency Assessment

The company's dependency on ecosystem services is limited. The main dependency is water availability and basic site-level drainage function. The company does not depend on forest products, wild biological resources, natural pollination, wetland fisheries, grazing land, medicinal plants or community forest resources.

Sr. No.	Ecosystem Service	Company Dependency Level	Reason	Risk Level
1	Water availability	Medium	Required for normal operational and domestic use	Low
2	Stormwater regulation	Medium	Required to avoid stagnation and maintain site condition	Low
3	Greenbelt dust buffering	Low	Supports site-level environmental quality	Low
4	Microclimate / shade	Low	Supports worker comfort and site aesthetics	Low
5	Pollination	Very low	Not required for aluminium operations	Very low
6	Pest regulation	Low	Mainly controlled by housekeeping rather than natural systems	Low
7	Soil function	Low	Relevant only for greenbelt and open area	Low
8	Cultural / aesthetic service	Low	Supports workplace environment	Low
9	Local community ecosystem dependency	Low	No material impact identified	Low

6.11 Impact on Affected Populations and Organisations

Stakeholder consultation did not identify any significant ecosystem service concern from affected populations or organisations. Nearby farmers did not report material crop, dust, drainage or biodiversity

concerns. Nearby residents and local representatives did not raise any significant concern related to trees, wildlife, water, drainage, pest attraction or biodiversity.

Sr. No.	Stakeholder Group	Ecosystem Service Link	Consultation Finding	Action Required
1	Workers	Shade, greenbelt, clean surroundings	No material concern reported	Maintain greenbelt
2	Security / gardeners	Wildlife observation, greenbelt, open area	No significant biodiversity concern reported	Annual observation
3	Maintenance	Drainage and stagnation	No wetland / amphibian concern reported	Annual drain review
4	Housekeeping / canteen	Waste and pest control	No major pest / scavenger concern reported	Maintain housekeeping
5	Nearby farmers	Agriculture, dust, drainage and water	No material concern reported	Record concern if raised
6	Nearby residents	Local environment	No material concern reported	Annual review
7	Transport representative	Roadside environment and roadkill	No recurring roadkill or wildlife crossing concern reported	Maintain safe movement

6.12 Ecosystem Service Impact Pathways

The following impact pathways were considered for GLS.

Sr. No.	Activity / Aspect	Ecosystem Service Potentially Affected	Impact Pathway	Risk Level	Control
1	Water use	Water availability	Normal industrial water consumption	Low	Responsible water use
2	Built-up area	Soil / infiltration	Industrial footprint	Very low	Maintain open / greenbelt area
3	Greenbelt maintenance	Dust buffering, shade, aesthetics	Plantation condition	Low	Annual greenbelt review

4	Drainage management	Stormwater regulation	Blockage / stagnation if unmanaged	Low	Annual drain review
5	Waste management	Pest regulation / hygiene	Pest attraction if open waste exists	Low	Housekeeping and waste control
6	Vehicle movement	Dust buffering / roadside vegetation	Minor dust generation	Low	Housekeeping and basic dust control
7	Weed growth	Greenbelt / open-area quality	Spread in unmanaged open areas	Low	Annual weed inspection
8	Wildlife / reptile occurrence	Common fauna protection	Occasional sighting	Low	No-harm approach

6.13 Ecosystem Services Risk Rating

Considering the very low biodiversity risk profile of the site, a qualitative risk rating is sufficient.

Sr. No.	Ecosystem Service	Dependency	Impact Potential	Overall Risk Level	Status
1	Water availability	Medium	Low	Low	Green
2	Stormwater regulation	Medium	Low	Low	Green
3	Greenbelt dust buffering	Low	Positive / low	Low	Green
4	Microclimate and shade	Low	Positive / low	Low	Green
5	Agricultural crop support	Very low	Low	Low	Green
6	Pollination	Very low	Very low	Very low	Green
7	Pest regulation	Low	Low	Low	Green
8	Aesthetic value of greenbelt	Low	Positive	Low	Green
9	Soil and open-area function	Low	Low	Low	Green
10	Biodiversity awareness	Low	Positive	Low	Green

6.14 Ecosystem Services Opportunities

Although the ecosystem service risk is very low, GLS can maintain positive environmental value through simple improvement actions.

Sr. No.	Opportunity	Ecosystem Service Enhanced	Practical Benefit	Status
1	Maintain greenbelt	Dust buffering, shade, aesthetics	Improves site environment	Existing / ongoing
2	Prefer native / locally suitable plantation	Habitat, pollination, microclimate	Improves long-term greenbelt value	Planned
3	Annual invasive weed control	Greenbelt quality	Prevents weed spread	Existing / ongoing
4	Drainage review	Stormwater regulation	Prevents stagnation	Planned annually
5	Waste and housekeeping control	Pest regulation	Prevents rodent / scavenger attraction	Existing / ongoing
6	Biodiversity awareness	Cultural / awareness service	Supports no-harm behaviour	Planned annually
7	Plant health review	Greenbelt and aesthetics	Maintains plantation quality	Existing / annual
8	Record wildlife sightings if any	Common fauna protection	Ensures no-harm response	As observed

6.15 Monitoring of Ecosystem Services

Because the site is very low risk, annual monitoring is adequate.

Sr. No.	Monitoring Parameter	Method	Frequency	Responsibility	Record
1	Greenbelt condition	Visual inspection	Annual	Admin / EHS	Greenbelt inspection record
2	Plantation survival / health	Visual inspection	Annual	Admin / Garden contractor	Plantation health record
3	Native / suitable plantation	Plantation record review	Annual	Admin / Garden contractor	Plantation register
4	Invasive weeds	Visual inspection	Annual	Admin / EHS	Weed inspection record
5	Drainage / water stagnation	Visual inspection	Annual, preferably monsoon-linked	Maintenance / EHS	Drain inspection record
6	Waste / pest attraction	Housekeeping review	Annual	Admin / Housekeeping	Waste / pest inspection

7	Wildlife / reptile observation	Record if observed	Annual / as observed	Security / EHS	Wildlife observation register
8	Biodiversity awareness	Toolbox talk / awareness note	Annual	EHS / HR	Training / awareness record
9	Ecosystem service review	Register review	Annual	EHS / Management	Review minutes

6.16 Expert Opinion Requirement

Considering the very low biodiversity risk profile of the GLS site, biodiversity expert opinion is not required for routine annual ecosystem services monitoring.

This conclusion is based on the following:

No forest habitat identified.

No wetland habitat identified.

No high biodiversity habitat identified.

No protected species habitat identified.

No material stakeholder concern identified.

No major ecosystem service dependency identified.

No significant direct impact pathway identified.

Limited physical survey already completed.

Annual internal review is adequate.

If any future major biodiversity issue arises, such as protected species incident, significant tree loss, major drainage change, land expansion, community complaint or new high-risk invasive spread, the company may consider external specialist support at that time.

6.17 Chapter Conclusion

The ecosystem services assessment confirms that GLS Aluminium Industries Pvt. Ltd. has very low ecosystem services risk. The relevant services are limited to greenbelt, dust buffering, microclimate, stormwater regulation, waste control, open-area maintenance, aesthetics and basic no-harm wildlife awareness.

No significant ecosystem service dependency or community-level biodiversity concern has been identified. Annual monitoring by internal teams is adequate.

CHAPTER 07

Biodiversity Baseline - Flora, Fauna, Pollinators and Invasive Species

7.1 Introduction

The biodiversity baseline provides a structured understanding of the flora, fauna, pollinators, insects and invasive species relevant to the GLS site. For a very low biodiversity risk industrial site, the baseline should be practical and site-relevance based. It should not overstate species presence or imply that regional species are present within the plant without evidence.

The GLS baseline has been prepared using available site information, limited physical survey, stakeholder consultation, flora and fauna photo-reference rating, invasive / exotic flora reference review and surrounding land-use context.

The baseline confirms that GLS does not contain significant natural habitat. The biodiversity baseline is mainly associated with greenbelt, open areas, common birds, insects, possible common reptiles, nearby agriculture and watch-list invasive / exotic plants.

7.2 Baseline Development Approach

The baseline was developed through the following sources:

Available GLS land-use and GIS maps.

Limited physical site survey.

Stakeholder consultation.

Flora photo-reference plates.

Fauna photo-reference plates.

Invasive / exotic flora reference plates.

Site greenbelt and open-area context.

Nearby agricultural and road-influenced landscape.

Professional interpretation of site relevance.

The flora and fauna ratings were used as site-relevance ratings. They were not used as IUCN or conservation-status ratings.

7.3 Baseline Interpretation Principle

The baseline follows a conservative interpretation principle:

A species is not treated as site-confirmed unless observed, reported credibly or supported by site evidence.

Regional species are treated as regional context only.

Common urban, agricultural and roadside species may be considered possible or occasional.

Rare, protected or habitat-specialist species are not assumed to occur within the site unless evidence exists.

Invasive / exotic species are treated as watch-list species unless observed as a significant site issue.

7.4 Rating System Used

The same rating system was used for flora and fauna analysis.

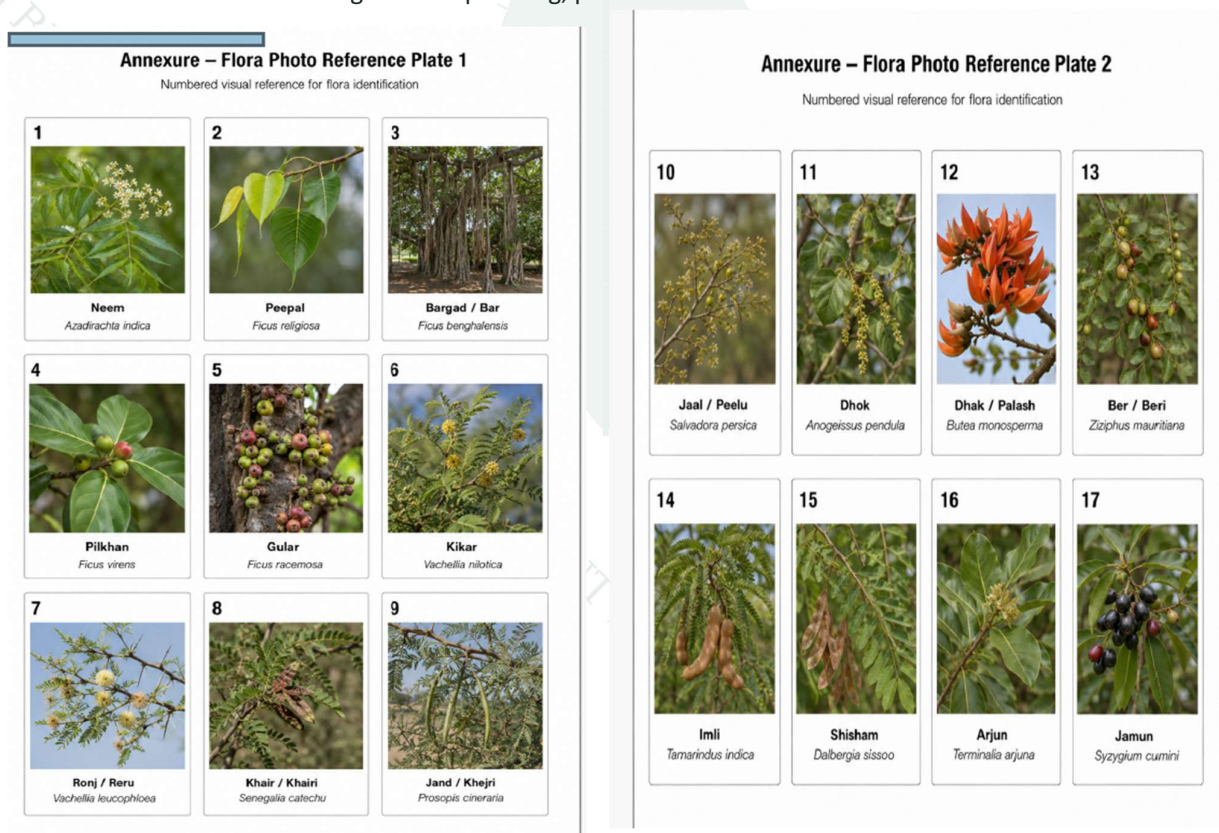
Original Rating	Final Report Rating	Interpretation
0	1	Very low / rare / not significant for GLS site
1	2	Low / possible / occasional regional relevance
2	3	Common / more relevant to disturbed, agricultural, roadside or plantation context

This rating reflects site relevance. It does not represent legal protection, conservation status or ecological importance at national level.

7.5 Flora Baseline

The flora baseline was prepared using the flora survey plates and site interpretation. A total of 25 native / local flora references were reviewed. The results show that most species have very low to low site relevance for GLS. Only Neem received the highest site-relevance rating.

The flora baseline is useful for greenbelt planning, plantation selection and annual site review.



[Photo Plate: Flora Photo Reference Plate 1][Photo Plate: Flora Photo Reference Plate 2]

Annexure – Flora Photo Reference Plate 3

Numbered visual reference for flora identification



[Photo Plate: Flora Photo Reference Plate 3]

7.6 Native / Local Flora Rating Register

Sr. No.	Common Name	Scientific Name	Final Report Rating	Interpretation
1	Neem	Azadirachta indica	3	Highly suitable / commonly relevant plantation species
2	Peepal	Ficus religiosa	2	Regionally suitable; occasional / cultural plantation relevance
3	Bargad / Bar	Ficus benghalensis	1	Very low site relevance / not significant in current survey
4	Pilkhan	Ficus virens	2	Regionally suitable; low site relevance
5	Gular	Ficus racemosa	1	Very low site relevance / not significant in current survey
6	Kikar	Vachellia nilotica	1	Dryland species but not

				significant at GLS site
7	Ronj / Reru	Vachellia leucophloea	1	Regional dryland species; very low site relevance
8	Khair / Khairi	Senegalia catechu	2	Regionally suitable; low site relevance
9	Jand / Khejri	Prosopis cineraria	2	Dryland native relevance; suitable where feasible
10	Jaal / Peelu	Salvadora persica	2	Dryland / arid-region relevance; low site relevance
11	Dhok	Anogeissus pendula	1	Regional dryland species; not significant at site
12	Dhak / Palash	Butea monosperma	1	Native species but not significant in current survey
13	Ber / Beri	Ziziphus mauritiana	1	Very low site relevance / not significant
14	Imli	Tamarindus indica	1	Very low site relevance in current site context
15	Shisham	Dalbergia sissoo	2	Suitable plantation species; low to moderate relevance
16	Arjun	Terminalia arjuna	2	Suitable where water / space is available; low relevance
17	Jamun	Syzygium cumini	1	Very low site relevance / not significant
18	Amaltas	Cassia fistula	1	Ornamental / native relevance but not significant at site

19	Amla	Phyllanthus emblica	1	Very low site relevance
20	Karanj	Millettia pinnata / Pongamia pinnata	2	Suitable plantation species; low relevance
21	Siris	Albizia lebbeck	2	Suitable shade / avenue tree; low relevance
22	Kachnar	Bauhinia variegata	2	Suitable ornamental / native plantation species
23	Bel	Aegle marmelos	1	Cultural / native value but not significant at site
24	Hingot	Balanites aegyptiaca	1	Dryland regional species; very low site relevance
25	Holoptelia / Papri	Holoptelea integrifolia	2	Regionally suitable; low site relevance

7.7 Native / Local Flora Rating Summary

Final Report Rating	Meaning	Number of Species
1	Very low / not significant for GLS site	13
2	Low / possible / suitable regional relevance	11
3	More relevant / commonly suitable for GLS plantation context	1
Total	Flora photo references reviewed	25

The result confirms that GLS has no significant natural flora habitat. The flora references are mainly useful for plantation guidance.

7.8 Flora Baseline Interpretation

The flora baseline indicates that:

Neem is the most site-relevant and suitable plantation species.

Peepal, Pilkhan, Khair, Khejri, Jaal, Shisham, Arjun, Karanj, Siris, Kachnar and Papri may be considered suitable or regionally relevant species.

Several native or dryland species are regionally relevant but not significant within the GLS site.

No rare or threatened flora habitat was identified within the site.

No forest-type flora patch was identified.

No wetland flora community was identified.

No high biodiversity vegetation patch was identified.

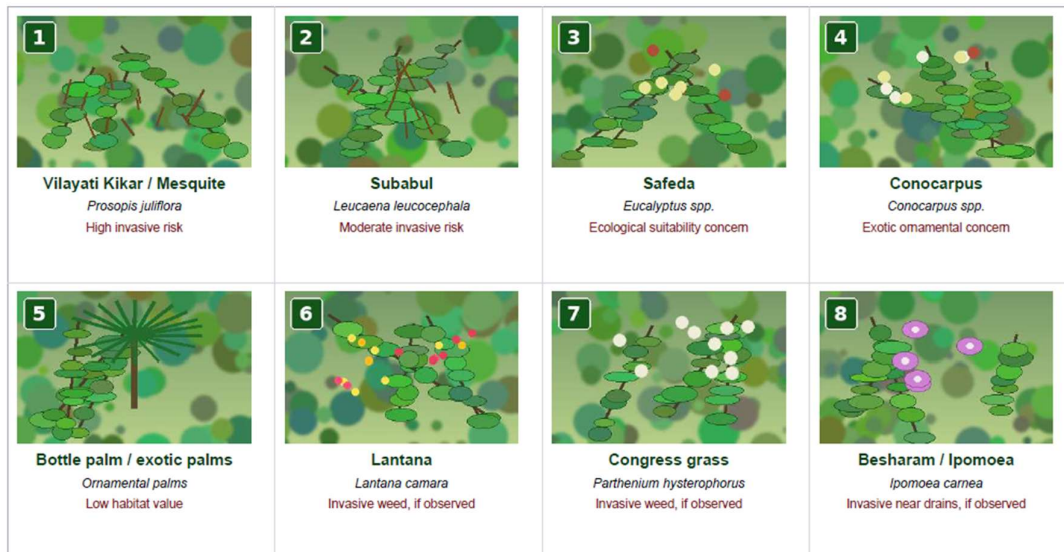
The appropriate management approach is annual greenbelt maintenance and preference for native / locally suitable plantation.

7.9 Exotic and Invasive Flora Baseline

Exotic and invasive flora references were reviewed to identify potential watch-list species. All invasive / exotic references were marked with the lowest site rating, meaning no significant site concern was identified in the current assessment.

INVASIVE / EXOTIC FLORA PHOTO REFERENCE - 1 TO 8

Compact numbered visual reference for biodiversity risk screening annexure



Note: Thumbnails are low-resolution quick-reference illustrations for layout and indexing. For final ASI submission, replace/validate with actual site photographs or verified public-domain field images where required.

[Photo Plate: Invasive / Exotic Flora Reference 1–8]

EXOTIC / NON-LOCAL FLORA REFERENCE CATALOG					
(Commonly Observed Non-native / Naturalized Species in and around GLS Site, Rewari, Haryana)					
1. Parthenium (Congress Grass) <i>Parthenium hysterophorus</i>	2. Lantana (Common Lantana) <i>Lantana camara</i>	3. Prosopis juliflora (Vilayati Babul) <i>Prosopis juliflora</i>	4. Cassia tora (Sicklepod) <i>Senna tora</i>	5. Eucalyptus (Eucalyptus) <i>Eucalyptus spp.</i>	6. Ailanthus (Tree of Heaven) <i>Ailanthus altissima</i>
					
Family: Asteraceae Origin: Tropical America	Family: Verbenaceae Origin: Tropical America	Family: Fabaceae Origin: South America	Family: Fabaceae Origin: Tropical America	Family: Myrtaceae Origin: Australia	Family: Simaroubaceae Origin: China
7. Ipomoea carnea (Pink Morning Glory) <i>Ipomoea carnea</i>	8. Argemone mexicana (Mexican Poppy) <i>Argemone mexicana</i>	9. Ricinus communis (Castor) <i>Ricinus communis</i>	10. Azadirachta indica (Neem) <i>Azadirachta indica</i>	11. Opuntia dillenii (Prickly Pear Cactus) <i>Opuntia dillenii</i>	12. Chrysanthemoides monilifera (Boneseed) <i>Chrysanthemoides monilifera</i>
					
Family: Convolvulaceae Origin: Tropical America	Family: Papaveraceae Origin: Tropical America	Family: Euphorbiaceae Origin: Africa	Family: Meliaceae Origin: South Asia (Cultivated Exotic in many regions)	Family: Cactaceae Origin: Mexico	Family: Asteraceae Origin: South Africa
Note: These species are non-native / exotic to the local ecosystem and may have invasive potential. Regular monitoring and management are recommended.			Source: Secondary Literature, GBIF, IUCN, eFloras, Field Reference		

[Photo Plate: Exotic / Non-local Flora Reference Catalog]

7.10 Invasive / Exotic Concern Flora Register

Sr. No.	Common Name	Scientific Name	Concern Type	Final Report Rating	GLS Interpretation
1	Vilayati Kikar / Mesquite	Prosopis juliflora	High invasive risk	1	Watch-list only; no major uncontrolled spread indicated
2	Subabul	Leucaena leucocephala	Moderate invasive risk	1	Watch-list only; avoid further promotion if not required
3	Safeda	Eucalyptus spp.	Ecological suitability concern	1	Not preferred for biodiversity plantation improvement
4	Conocarpus	Conocarpus spp.	Exotic ornamental concern	1	Avoid new plantation for biodiversity value
5	Bottle Palm / Exotic Palms	Ornamental palm species	Low habitat value	1	Low biodiversity

					value; ornamental only
6	Lantana	Lantana camara	Invasive weed if observed	1	Watch-list; remove if observed
7	Congress Grass	Parthenium hysterophor us	Invasive weed if observed	1	Watch-list; remove before spread
8	Besharam / Ipomoea	Ipomoea carnea	Invasive near drains if observed	1	Watch-list near drains / wet patches

7.11 Exotic / Non-local Flora Register

Sr. No.	Common Name	Scientific Name	Category	Final Report Rating	GLS Interpretatio n
1	Eucalyptus / Safeda	Eucalyptus spp.	Exotic	1	Low site biodiversity value
2	Subabul	Leucaena leucocephala	Exotic / invasive tendency	1	Watch-list only
3	Vilayati Kikar / Kabuli Kikar / Mesquite	Prosopis juliflora	Exotic invasive	1	Avoid promotion; remove if spreading
4	Conocarpus	Conocarpus spp.	Exotic ornamental	1	Low habitat value
5	Cassia siamea	Senna siamea / Cassia siamea	Exotic / ornamental	1	Ornamental value only; low biodiversity value
6	Bottle Palm / Ornamental Palms	Various ornamental palm species	Exotic / ornamental	1	Low habitat value
7	Silver Oak	Grevillea robusta	Exotic	1	Low site biodiversity relevance
8	Poplar	Populus spp.	Non-local plantation species	1	Not preferred for biodiversity enhancemen t

7.12 Combined Flora Summary

Flora Category	Number Reviewed	Rating 1	Rating 2	Rating 3	Overall Interpretation
Native / local flora	25	13	11	1	Mostly very low to low site relevance; useful for plantation guidance
Invasive / exotic concern flora	8	8	0	0	Watch-list only; no significant site concern indicated
Exotic / non-local flora	8	8	0	0	Low biodiversity value; avoid promoting in biodiversity plantation
Total flora references reviewed	41	29	11	1	Supports very low biodiversity risk conclusion

7.13 Fauna Baseline

The fauna baseline was prepared using fauna photo-reference plates, stakeholder consultation and limited physical survey observations. The fauna baseline includes mammals, birds, reptiles, amphibians, butterflies, pollinators and insects.

The fauna baseline confirms that GLS does not contain significant wildlife habitat. The species or groups relevant to the site are mainly common, generalist, urban, roadside or agricultural species.

Annexure – Reptile Photo Reference Plate 1

Numbered visual reference for fauna identification

1	2	3	4	5
				
Bengal Monitor Lizard <i>Varanus bengalensis</i>	Spiny-tailed Lizard <i>Saara hardwickii</i>	Garden Lizard <i>Calotes versicolor</i>	Common House Gecko <i>Hemidactylus frenatus</i> / <i>Hemidactylus</i> spp.	Indian Rat Snake <i>Ptyas mucosa</i>
Reptile	Reptile	Reptile	Reptile	Reptile / Snake

Annexure – Reptile Photo Reference Plate 2

Numbered visual reference for fauna identification

6	7	8	9	10
				
Checkered Keelback <i>Fowlea piscator</i>	Indian Cobra <i>Naja naja</i>	Common Krait <i>Bungarus caeruleus</i>	Saw-scaled Viper <i>Echis carinatus</i>	Indian Flapshell Turtle <i>Lissemys punctata</i>
Reptile / Snake	Reptile / Snake	Reptile / Snake	Reptile / Snake	Reptile / Turtle

Annexure – Bird Photo Reference Plate 1

Numbered visual reference for fauna identification

1



Indian Peafowl

Pavo cristatus

Bird

2



Red-wattled Lapwing

Vanellus indicus

Bird

3



House Sparrow

Passer domesticus

Bird

4



Common Myna

Acridotheres tristis

Bird

5



Bank Myna

Acridotheres ginginianus

Bird

6



Rose-ringed Parakeet

Psittacula krameri

Bird

7



Rock Pigeon

Columba livia

Bird

8



Laughing Dove

Spilopelia senegalensis

Bird

Annexure – Bird Photo Reference Plate 2

Numbered visual reference for fauna identification

9



Spotted Dove

Spilopelia chinensis

Bird

10



Black Drongo

Dicrurus macrocercus

Bird

11



Indian Roller

Coracias benghalensis

Bird

12



White-throated Kingfisher

Halcyon smyrnensis

Bird

13



Green Bee-eater

Merops orientalis

Bird

14



Cattle Egret

Bubulcus ibis

Bird

15



Little Egret

Egretta garzetta

Bird

16



Pond Heron

Ardeola grayii

Bird

Annexure – Bird Photo Reference Plate 3

Numbered visual reference for fauna identification

17



House Crow
Corvus splendens
Bird

18



Large-billed Crow
Corvus macrorhynchos
Bird

19



Shikra
Accipiter badius
Bird of prey

20



Black Kite
Milvus migrans
Bird of prey

21



Barn Owl
Tyto alba
Owl

22



Spotted Owlet
Athene brama
Owl

23



Asian Koel
Eudynamys scolopacea
Bird

24



Purple Sunbird
Cinnyris asiaticus
Bird

25



Tailorbird
Orthotomus sutorius
Bird

Photo Plate: Bird Photo Reference Plates

Annexure – Mammal Photo Reference Plate 1

Numbered visual reference for fauna identification

1



Blackbuck

Antelope cervicapra

Mammal / Antelope

2



Chinkara / Indian Gazelle

Gazella bennettii

Mammal / Antelope

3



Nilgai / Blue Bull

Boselaphus tragocamelus

Mammal / Antelope

4



Golden Jackal

Canis aureus

Mammal / Carnivore

5



Indian Fox / Bengal Fox

Vulpes bengalensis

Mammal / Carnivore

6



Desert Fox

Vulpes vulpes pusilla /
desert fox group

Mammal / Carnivore

7



Striped Hyena

Hyaena hyaena

Mammal / Carnivore

8



Jungle Cat

Felis chaus

Mammal / Small wild cat

Annexure – Mammal Photo Reference Plate 2

Numbered visual reference for fauna identification

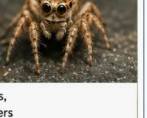
9  Indian Hare <i>Lepus nigricollis</i> Mammal / Lagomorph	10  Indian Grey Mongoose <i>Herpestes edwardsii</i> Mammal / Small carnivore	11  Five-striped Palm Squirrel <i>Funambulus pennantii</i> Mammal / Rodent	12  Indian Porcupine <i>Hystrix indica</i> Mammal / Rodent
13  Rhesus Macaque <i>Macaca mulatta</i> Mammal / Primate	14  Small Indian Civet <i>Viverricula indica</i> Mammal / Carnivore	15  Common House Rat / Field Rats <i>Rattus spp. / Bandicota spp.</i> Mammal / Rodent	

Photo Plate: Mammal Photo Reference Plates

AMPHIBIANS – PLATE 1		Fauna Inventory – Amphibians					
1. Indian Common Toad <i>Duttaphrynus melanostictus</i>	2. Skittering Frog <i>Euphlyctis cyanophlyctis</i>	Sr. No.	Common Name	Scientific Name	Category	Plate No.	Image
		1	Indian Common Toad	<i>Duttaphrynus melanostictus</i>	Amphibian	1	Plate 1 (Indian Common Toad)
		2	Skittering Frog	<i>Euphlyctis cyanophlyctis</i>	Amphibian	1	Plate 1 (Skittering Frog)
		3	Indian Bullfrog	<i>Hoplobatrachus tigerinus</i>	Amphibian	2	Plate 2 (Indian Bullfrog)
		4	Paddy Field Frog	<i>Minervarya</i> spp. / <i>Fejervarya</i> spp.	Amphibian	2	Plate 2 (Paddy Field Frog)
AMPHIBIANS – PLATE 2							
3. Indian Bullfrog <i>Hoplobatrachus tigerinus</i>	4. Paddy Field Frog <i>Minervarya</i> spp. / <i>Fejervarya</i> spp.						
							

* Images are indicative reference photographs.

[Photo Plate: Amphibian Photo Reference Plates]

PHOTO PLATES – BUTTERFLIES, POLLINATORS AND INSECTS					
PLATE 1: BUTTERFLIES     Common grass yellow, plain tiger, lime butterfly, emigrants		PLATE 2: BEES     Honey bees, solitary bees, carpenter bees		PLATE 3: DRAGONFLIES & DAMSELFLIES     Common skimmers, marsh species	
PLATE 4: ANTS     Ground and tree ants		PLATE 5: BEETLES     Dung beetles, ground beetles		PLATE 6: SPIDERS     Orb weavers, ground spiders	

7.14 Mammal

Baseline

The mammal rating exercise included species such as Blackbuck, Chinkara, Nilgai, Jackal, Fox, Hyena, Jungle Cat, Indian Hare, Mongoose, Palm Squirrel, Porcupine, Rhesus Macaque, Civet and rats.

The interpretation is that large or conservation-sensitive mammals are regional references only and are not site-level confirmed biodiversity features for GLS. Common rodents may have higher relevance because industrial and agricultural interfaces can support them if housekeeping is poor.

The mammal baseline does not indicate high biodiversity risk. The management approach is housekeeping, waste control and observation record if any fauna is seen.

7.15 Bird Baseline

The bird rating exercise included common urban and agricultural birds such as Common Myna, Bank Myna, Rock Pigeon, Laughing Dove, Tailorbird, House Sparrow, Rose-ringed Parakeet, Spotted Dove, Green Bee-eater, House Crow, Sunbird and others.

Common myna, bank myna, rock pigeon, laughing dove and tailorbird showed higher site relevance because such species are common in semi-urban, agricultural and roadside landscapes.

Wetland birds and raptors were treated as lower site relevance because no wetland or significant nesting habitat was identified within the site.

The bird baseline indicates low biodiversity risk. The management approach is to avoid nest disturbance where observed and maintain greenbelt.

7.16 Reptile Baseline

Reptile references included Garden Lizard, House Gecko, Rat Snake, Cobra, Krait, Keelback, Saw-scaled Viper, Monitor Lizard and Flapshell Turtle.

Common lizards and occasional snakes may occur in agricultural, boundary, storage or open areas. However, no significant reptile habitat or protected reptile concern was identified during the limited survey.

The appropriate management control is no intentional harm, safe response and record of sightings if any. A complex reptile monitoring programme is not required.

7.17 Amphibian Baseline

Amphibian references included Indian Common Toad, Skittering Frog, Indian Bullfrog and Paddy Field Frog. Since no natural wetland was identified within the GLS site, amphibian relevance is low.

Amphibians may occur seasonally near drains, wet patches or monsoon water accumulation, but this does not indicate significant biodiversity risk. Annual drainage and stagnation review is adequate.

7.18 Butterfly, Pollinator and Insect Baseline

Butterflies, bees, ants, beetles, spiders, dragonflies and damselflies were considered in the baseline. Common insects and pollinators may occur in greenbelt and nearby agricultural areas.

The site does not require intensive pollinator monitoring. Suitable flowering plants may be included where plantation is carried out. Annual greenbelt review is adequate.

7.19 Fauna Rating Interpretation

The fauna rating supports the very low biodiversity risk conclusion.

Fauna Group	Site Relevance	Management Requirement
Common birds	Low to moderate	Maintain greenbelt and avoid nest disturbance where observed

Mammals	Very low to low	Maintain housekeeping and waste control
Rodents	Moderate where waste / storage exists	Waste and pest control
Reptiles / snakes	Low / occasional	No-harm response and sighting record
Amphibians	Low / seasonal	Drainage and stagnation review
Pollinators / insects	Low	Maintain suitable plantation where feasible

7.20 Stakeholder Confirmation of Biodiversity Baseline

Stakeholder consultation supported the biodiversity baseline.

Security personnel did not report significant wildlife movement or protected fauna concern.

Gardeners did not report rare flora or major invasive species spread.

Housekeeping personnel did not report major pest or scavenger concern.

Maintenance personnel did not report significant wetland or amphibian habitat.

Nearby farmers did not report crop, dust, drainage or biodiversity concern.

Nearby residents and local representatives did not report material biodiversity issue.

Transport representative did not report recurring roadkill or wildlife crossing issue.

Workers did not report significant biodiversity incidents in work areas.

This confirms that the baseline is very low risk and annual monitoring is adequate.

7.21 Site-Confirmed Biodiversity Interpretation

The limited physical survey did not identify any significant biodiversity feature. Therefore, the site-confirmed interpretation is:

No significant flora habitat identified.

No rare flora patch identified.

No forest flora identified.

No wetland flora identified.

No major invasive flora spread identified.

No significant wildlife habitat identified.

No wildlife corridor identified.

No protected species habitat identified.

No wetland fauna habitat identified.

No material pollinator habitat requiring special management identified.

The baseline is therefore suitable for very low risk classification.

7.22 Biodiversity Baseline Summary

Biodiversity Component	Assessment Result	Risk Level	Monitoring Requirement
Native / local flora	Mostly low / very low site relevance	Very low	Annual greenbelt review
Exotic flora	Low biodiversity value	Low	Avoid future promotion
Invasive flora	Watch-list only; no major spread identified	Low	Annual weed review
Birds	Common species may occur	Low	Observation-based review
Mammals	Mostly regional relevance; rodents may occur	Low	Housekeeping / pest control
Reptiles	Occasional common reptiles possible	Low	No-harm and sighting record
Amphibians	Low seasonal relevance	Low	Drainage review
Pollinators / insects	Common insects may occur	Low	Greenbelt support
Protected species habitat	Not identified	Very low	No special monitoring
Overall biodiversity baseline	Very low biodiversity risk	Very low	Annual monitoring

7.23 Biodiversity Baseline Conclusion

The biodiversity baseline confirms that GLS Aluminium Industries Pvt. Ltd. is a very low biodiversity risk industrial site. The site is located in a developed, road-influenced and agriculture-surrounded landscape near Rewari city. No significant flora, fauna, wetland, forest, protected habitat or high biodiversity ecosystem was identified during the limited physical survey.

The flora and fauna rating exercises support this conclusion. Most species have very low to low site relevance. Common semi-urban and agricultural species may occur occasionally, but they do not indicate high biodiversity sensitivity.

The appropriate management approach is annual review of greenbelt, plant health, invasive weeds, drainage, waste, wildlife observations and biodiversity awareness.

CHAPTER 08

Biodiversity Risk and Impact Assessment

8.1 Introduction

The biodiversity risk and impact assessment is the central part of this report. It brings together the findings from site location, land use, protected-area screening, ecosystem services assessment, flora and fauna baseline, limited physical survey and stakeholder consultation.

For GLS Aluminium Industries Pvt. Ltd., the assessment clearly indicates a very low biodiversity risk profile. The site is located near Rewari city, with road / state highway influence, surrounding agriculture, semi-urban development and industrial land use. No forest habitat, wetland habitat, protected habitat, wildlife corridor, rare flora patch or significant biodiversity feature was identified within or immediately surrounding the site during the limited physical survey.

The purpose of this chapter is to assess the actual and potential biodiversity risks and impacts in a proportionate manner. Since the site is not ecologically sensitive, the assessment does not create unnecessary high-risk issues. Instead, it focuses on realistic site-level aspects such as greenbelt maintenance, open-area control, invasive weed prevention, drainage, waste management, common fauna observation, no-harm response and annual biodiversity review.

8.2 Risk Assessment Basis

The biodiversity risk assessment was based on the following evidence and inputs:

Site location near Rewari city and road-influenced surroundings.

Available GIS / map evidence.

Protected area / ESZ / Ramsar screening.

Land-use and site-area data.

Limited physical survey.

Stakeholder consultation completed on 06.04.2026 and 07.04.2026.

Flora photo-reference rating.

Fauna photo-reference rating.

Invasive / exotic flora screening.

Ecosystem services assessment.

Site-level operational context.

Greenbelt / open area distribution.

Housekeeping, drainage and waste interface review.

The risk assessment was developed as a practical industrial biodiversity register suitable for a very low biodiversity risk site.

8.3 Key Site Risk Context

Sr. No.	Risk Context Parameter	GLS Assessment Finding	Risk Interpretation
1	Site location	Near Rewari city / developed surroundings	Very low biodiversity sensitivity
2	Road influence	Near road / state highway / transport corridor	Disturbed landscape; low sensitivity
3	Surrounding land use	Agriculture, semi-urban and industrial land use	Low ecological sensitivity
4	Protected area within site	Not present	Very low risk
5	Forest habitat within site	Not identified	Very low risk
6	Wetland habitat within site	Not identified	Very low risk
7	Significant flora habitat	Not identified during limited survey	Very low risk
8	Significant fauna habitat	Not identified during limited survey	Very low risk
9	Wildlife corridor	Not identified	Very low risk
10	Stakeholder concern	No material biodiversity concern raised	Very low risk
11	Ecosystem service dependency	No high dependency identified	Low risk
12	Overall biodiversity risk	Controlled through annual review	Very low

8.4 Risk Rating Method

Considering the very low biodiversity risk profile of GLS, a simplified qualitative rating method has been used. This is more suitable than a complex numerical ecological risk model.

Risk Rating	Description	Management Requirement
Very Low	No significant biodiversity receptor or impact pathway identified	Maintain routine controls and annual review
Low	Minor site-level biodiversity interaction possible	Maintain basic monitoring and planned improvement
Moderate	Local issue requiring planned corrective action	Include in annual improvement plan if observed
High	Significant biodiversity risk requiring immediate management action	Not identified for current GLS site condition

No high biodiversity risks have been identified for the current GLS site condition.

8.5 Biodiversity Risk Register

Sr. No.	Activity / Aspect	Biodiversity Receptor	Potential Risk / Concern	Existing / Observed Control	Risk Rating	Status	Planned / Ongoing Control
1	Existing industrial operation	General site environment	Disturbance to local vegetation or common fauna	Established industrial operation in developed / road-influenced setting	Very Low	Green	Maintain routine environmental controls
2	Site location and land use	Surrounding agriculture / roadside ecology	Minor interaction with agricultural / roadside vegetation	Site located near city / road / agriculture; no sensitive habitat observed	Very Low	Green	Annual land-use and greenbelt review
3	Greenbelt / plantation	Trees, shrubs, common birds and insects	Poor maintenance may reduce site greenery	Greenbelt / plantation available and maintained	Low	Green	Annual greenbelt inspection
4	Native / suitable plantation	Plantation area	Excess ornamental plantation may have limited biodiversity value	Plantation maintenance under admin / garden control	Low	Yellow	Prefer native / locally suitable species in future plantation
5	Plant health	Trees and planted vegetation	Plant mortality or poor health may reduce greenery	General plant condition reviewed during limited survey	Low	Green	Annual tree / plant health review
6	Invasive weeds	Open patches / greenbelt edge	Weed growth may affect plantation quality	No major uncontrolled invasive spread observed	Low	Green	Annual invasive weed inspection

7	Drainage / water stagnation	Drains, insects and nuisance vectors	Water stagnation may create mosquito / weed issue	Drainage managed under site maintenance	Low	Yellow	Annual drain and stagnation review
8	Waste / canteen / housekeeping	Rodents, birds, insects and stray animals	Open waste may attract pests / scavengers	Housekeeping and waste controls practiced	Low	Green	Annual waste and pest-attraction review
9	Occasional wildlife / reptile sighting	Common birds, reptiles and snakes, if any	Unsafe response or intentional harm	No significant wildlife issue observed	Low	Yellow	Maintain no-harm instruction and sighting record if observed
10	Vehicle movement near site	Common fauna / roadside vegetation	Minor dust or road-related disturbance	Site is road-influenced; no sensitive receptor observed	Very Low	Green	Maintain safe driving and dust control where required
11	Dust from movement / road influence	Greenbelt / roadside crops	Minor dust deposition on vegetation	Existing road and industrial setting; no significant concern noted	Low	Green	Maintain housekeeping and greenbelt barrier
12	Noise and lighting	Common birds / insects	Minor disturbance possible	No sensitive fauna habitat observed	Very Low	Green	Maintain normal operational controls
13	Water use	Local ecosystem service	No specific biodiversity dependency identified during limited survey	Industrial / developed context; no wetland habitat within site	Low	Green	Continue responsible water use practices

14	Chemical / oil handling	Soil / vegetation near storage area	Spill may affect local soil / plants if uncontrolled	General EHS controls applicable	Low	Green	Maintain spill prevention and good housekeeping
15	Stakeholder concern	Farmers / nearby community	Biodiversity-related concern may arise if dust, drainage or waste issue occurs	No significant biodiversity concern identified during consultation	Low	Yellow	Maintain concern recording and annual review
16	Biodiversity awareness	Workers / contractors	Lack of awareness may cause poor response to wildlife / plant issues	Basic EHS awareness exists	Low	Yellow	Include biodiversity in annual toolbox / awareness note
17	Protected area linkage	Regional protected area context	Direct impact unlikely based on site setting	No protected habitat observed within site	Very Low	Green	Maintain protected-area screening record
18	Overall biodiversity risk	Site-level biodiversity receptors	No significant biodiversity risk identified	Screening, limited survey and consultation completed	Very Low	Green	Annual biodiversity review adequate

8.6 Risk Register Interpretation

The risk register confirms that GLS has no high biodiversity risk. Most risk items are very low or low. Yellow status has been used only for areas where future planned improvement or annual evidence strengthening is useful. Yellow does not mean significant biodiversity risk. It indicates that an annual review, record or simple improvement action should be maintained.

The key yellow areas are:

Preference for native / locally suitable plantation.

Annual drain and stagnation review.

Wildlife / reptile observation record if any sighting occurs.

Concern recording if any future stakeholder concern arises.

Annual biodiversity awareness / toolbox talk.

These are practical management controls and do not indicate high ecological sensitivity.

8.7 Biodiversity Impact Assessment Basis

The impact assessment examines how company activities may affect biodiversity receptors. For GLS, the impact assessment has been kept realistic and site-specific. Since the site is not located in a sensitive biodiversity setting, impacts are mainly minor, local and manageable.

The following impact pathways were considered:

Land occupation.

Built-up industrial footprint.

Greenbelt maintenance.

Open-area management.

Invasive weed spread.

Drainage / water stagnation.

Waste / pest attraction.

Vehicle movement and dust.

Noise and lighting.

Water use.

Chemical / spill risk.

Occasional common fauna or reptile interaction.

Stakeholder concern.

Protected-area context.

No significant irreversible biodiversity impact has been identified.

8.8 Impact Significance Rating

Impact Rating	Description	Application to GLS
Negligible	No measurable biodiversity impact	Applicable to most site activities
Low	Minor site-level interaction, manageable through routine controls	Applicable to greenbelt, weeds, drainage, waste and occasional fauna
Moderate	Localised impact requiring planned action	Not identified under current condition
High	Significant impact on sensitive biodiversity receptor	Not identified

No high biodiversity impact has been identified.

8.9 Biodiversity Impact Matrix

Sr. No.	Activity / Aspect	Stressor / Interaction	Biodiversity Receptor	Potential Impact	Existing / Observed Control	Impact Significance	Status	Planned / Ongoing Action
1	Existing industrial operation	Routine operational activity	General site environment	No significant biodiversity impact identified	Established industrial site; limited survey found no sensitive habitat	Negligible	Green	Continue routine environmental controls
2	Site location near road / city	Roadside / developed land influence	Roadside vegetation and common fauna	No significant impact beyond existing developed context	Site located in road-influenced, semi-urban / industrial setting	Negligible	Green	Maintain basic monitoring
3	Surrounding agriculture	Agricultural landscape interface	Crops, common insects and birds	No direct adverse biodiversity impact identified	No significant concern reported during consultation	Low	Green	Maintain dust / housekeeping controls
4	Greenbelt maintenance	Plantation management	Trees, shrubs, common birds and insects	Poor maintenance may reduce site greenery	Existing greenbelt / plantation maintained	Low	Green	Annual greenbelt review
5	Future plantation	Species selection	Greenbelt and pollinators	Low biodiversity value if unsuitable species used	Plantation activity under admin / garden control	Low	Yellow	Prefer native / locally suitable species

6	Tree / plant health	Plant mortality	Plantation / greenbelt	Reduced greenbelt quality	General plant condition acceptable during limited survey	Low	Green	Annual plant health check
7	Invasive weed growth	Weed spread in open / edge areas	Greenbelt and open patches	Weed spread may reduce plantation quality	No major uncontrolled invasive spread observed	Low	Green	Annual invasive weed review
8	Drainage / water stagnation	Temporary stagnation / blocked drain	Insects, weeds and nuisance vectors	May create mosquito / weed issue if unmanaged	Drainage under site maintenance	Low	Yellow	Annual monsoon-linked drain review
9	Waste / housekeeping	Open waste or poor housekeeping	Rodents, birds, stray animals and insects	May attract pests or scavengers	Routine housekeeping and waste controls	Low	Green	Annual waste / pest-attraction review
10	Occasional wildlife / reptiles	Sighting of common birds / reptiles / snakes	Common fauna	Unsafe response may harm fauna	No significant wildlife issue observed	Low	Yellow	Maintain no-harm awareness and record sightings
11	Vehicle movement	Dust / movement / minor disturbance	Roadside vegetation and common fauna	Minor local disturbance possible	Existing road-influenced setting	Low	Green	Maintain safe movement and housekeeping
12	Dust deposition	Road / yard dust	Greenbelt / nearby agricultural interface	Minor plant dusting possible if not controlled	No significant biodiversity concern observed	Low	Green	Continue routine dust control if required

13	Noise	Operational / traffic noise	Common birds / insects	No significant impact due to developed setting	No sensitive fauna habitat observed	Negligible	Green	Maintain normal controls
14	Lighting	Night lighting	Insects / common fauna	Minor insect attraction possible	Normal industrial lighting	Low	Green	Avoid unnecessary excessive lighting
15	Water use	Resource use	Ecosystem services	No significant biodiversity dependency identified	Industrial / developed site context	Low	Green	Continue responsible water use
16	Spill / leakage risk	Oil / chemical spill pathway	Soil / vegetation near storage area	Localised impact possible if incident occurs	EHS controls and housekeeping applicable	Low	Green	Maintain spill prevention
17	Protected area / ESZ context	Regional protected-area relevance	Regional protected areas	No direct impact identified from current operation	Site setting and limited survey indicate very low risk	Negligible	Green	Maintain screening evidence
18	Overall biodiversity impact	Combined site activities	Site-level biodiversity receptors	No significant irreversible impact identified	Limited survey and desk review completed	Very Low	Green	Annual review adequate

8.10 Positive Biodiversity Impact and Improvement Opportunities

Although GLS is a very low biodiversity risk site, there are positive improvement opportunities. These are simple, practical and suitable for an industrial site.

Sr. No.	Improvement Area	Positive Impact	Planned / Existing Action	Status
1	Greenbelt maintenance	Maintains site greenery and local microhabitat	Continue annual greenbelt maintenance	Green
2	Native / suitable plantation	Improves plantation value over time	Prefer native / locally suitable species in future plantation	Yellow
3	Plant survival review	Ensures plantation remains effective	Annual survival review where plantation is carried out	Yellow
4	Invasive weed control	Prevents loss of plantation quality	Annual invasive weed inspection	Green
5	No-harm wildlife approach	Prevents harm to common fauna	Awareness and observation register	Yellow
6	Drainage control	Prevents water stagnation and nuisance vectors	Annual drainage review	Yellow
7	Waste control	Reduces pest and scavenger attraction	Continue housekeeping controls	Green
8	Annual biodiversity review	Maintains audit readiness	Include biodiversity in annual management review	Yellow

8.11 Residual Impact Assessment

Residual impact means the impact that remains after existing controls and planned actions are considered. For GLS, residual biodiversity impacts are very low.

Sr. No.	Impact Area	Initial Impact	Control / Management Measure	Residual Impact	Status
1	Industrial operation	Very low	Existing operational and EHS controls	Negligible	Green
2	Greenbelt maintenance	Low	Annual greenbelt inspection	Very low	Green
3	Invasive weeds	Low	Annual weed inspection and control	Very low	Green

4	Waste / pest attraction	Low	Housekeeping and waste controls	Very low	Green
5	Drainage / stagnation	Low	Annual drain review	Very low to low	Yellow
6	Wildlife / reptile interaction	Low	No-harm awareness and observation record	Very low to low	Yellow
7	Dust / road influence	Low	Routine dust and housekeeping controls	Very low	Green
8	Plantation quality	Low	Preference for native / suitable species	Very low to low	Yellow
9	Protected-area linkage	Negligible	Screening record maintained	Negligible	Green
10	Overall residual biodiversity impact	Very low	Annual monitoring and management review	Very low / controlled	Green

8.12 Materiality Assessment

Materiality in biodiversity means whether a risk or impact is important enough to require management attention, disclosure or specific action. For GLS, no material biodiversity risk has been identified in the sense of significant impact on protected habitat, threatened species, wetland, forest, community ecosystem services or wildlife corridor.

The following are considered non-material but management-relevant:

Greenbelt maintenance.

Native / suitable plantation preference.

Plant survival.

Invasive weed watch-list.

Drainage / stagnation review.

Waste and pest prevention.

Common fauna / reptile no-harm approach.

Annual awareness.

These are low-level operational controls, not material biodiversity risks.

8.13 Risk and Impact Assessment Conclusion

The biodiversity risk and impact assessment confirms that GLS Aluminium Industries Pvt. Ltd. is a very low biodiversity risk industrial site.

The assessment has found:

No significant biodiversity habitat within or immediately surrounding the site.

No forest habitat.

No wetland habitat.

No protected habitat.

No wildlife corridor.

No significant flora or fauna concern.

No major invasive species spread.

No material stakeholder biodiversity concern.

No direct operation-linked impact on protected areas or Ramsar wetlands.

No high biodiversity impact requiring offset, compensation or complex ecological restoration.

The appropriate management approach is annual monitoring, greenbelt maintenance, invasive weed review, drainage review, waste control, no-harm wildlife awareness and annual management review.

CHAPTER 09

Stakeholder Consultation

9.1 Introduction

Stakeholder consultation is an important part of biodiversity and ecosystem services assessment. Local stakeholders often observe site-level biodiversity issues that may not be visible from desk review alone. Security guards may observe reptiles or night fauna. Gardeners may observe plant health, weeds, butterflies and bees. Housekeeping staff may observe rodents, dogs, flies or waste-related issues. Maintenance teams may observe drains, water stagnation or utility-related concerns. Farmers and local residents may observe dust, drainage, wildlife movement, trees or local environmental concerns.

For GLS, stakeholder consultation was conducted to validate the findings of the limited physical survey and biodiversity screening. The consultation confirmed that no material biodiversity concern exists within or immediately surrounding the site.

9.2 Consultation Objective

The objectives of stakeholder consultation were:

To understand whether stakeholders have observed wildlife, reptiles, birds, insects, invasive weeds or biodiversity issues at or around the site.

To identify any concern related to greenbelt, drainage, dust, waste, water, pest attraction or nearby agriculture.

To understand whether nearby farmers or residents have any ecosystem service concern.

To validate the very low biodiversity risk conclusion.

To support ASI biodiversity and ecosystem service requirements.

To integrate relevant findings into the Biodiversity Action Plan and annual KPI system.

9.3 Consultation Scope

The consultation covered internal and local stakeholders relevant to the GLS site.

The stakeholder groups included:

Security personnel.

Gardeners.

Housekeeping / canteen interface personnel.

Maintenance personnel.

Workers from production, maintenance, utility, store and admin areas.

Nearby farmers.

Nearby resident / local community representative.

Transport representative.

Panchayat / local representative.

The consultation was completed on 06.04.2026 and 07.04.2026.

9.4 Consultation Method

The consultation was conducted through simple interviews, field walk discussions, worker interactions and local stakeholder discussions. The method was suitable for the very low biodiversity risk profile of the site.

The questions focused on:

Wildlife sightings.

Snake or reptile observations.

Birds and common fauna.

Greenbelt condition.

Invasive weeds.

Butterflies / bees / insects.

Drainage or water stagnation.

Waste and pest attraction.

Crop or agricultural concerns.

Dust concerns.

Roadkill or wildlife crossing.

Community concern.

Suggestions for improvement.

9.5 Consultation Rating Link

The consultation findings were interpreted along with the flora and fauna photo-reference rating. The rating was used to understand site relevance.

Rating	Meaning
1	Very low / rare / not significant for GLS site
2	Low / possible / occasional regional relevance
3	Common / more likely in disturbed, agricultural, roadside or semi-urban landscape

Most consultation findings fall in Rating 1–2. This confirms very low to low site relevance. Only common urban, agricultural or roadside species may occur occasionally.

9.6 Stakeholder Consultation Summary

Sr. No.	Consultation Type	Date	Stakeholder Name / Group	Location / Area	Key Finding	Rating Link	Status
1	Security consultation	06.04.2026	Bhupendra, Sunil, Ajay	Main gate / boundary	No significant wildlife movement	Rating 1–2	Completed

					t or protected fauna concern reported; only occasional common birds / reptiles possible		
2	Gardener / greenbelt consultation	06.04.2026	Satish, Jogendra	Greenbelt / plantation	Greenbelt maintained; no significant invasive weed spread or rare flora concern reported	Rating 1–2	Completed
3	Housekeeping / waste-area consultation	06.04.2026	Narendra, Mohit, Kamal	Waste / canteen area	No major pest or scavenger concern reported; routine housekeeping controls adequate	Rating 1–2	Completed
4	Maintenance consultation	06.04.2026	Pradip	Drain / utility area	No significant waterbody / wetland / amphibian habitat identified; annual drain review adequate	Rating 1–2	Completed
5	Farmer consultation	06.04.2026	Rajendra Kumar	Nearby agricultural area	Agriculture present nearby; no significant biodiversity impact or crop-related	Rating 1–2	Completed

					concern reported		
6	Nearby resident consultation	06.04.2026	Vikam Kinha	Nearby village / settlement	No significant wildlife conflict, tree concern or ecosystem service concern reported	Rating 1–2	Completed
7	Transport route consultation	06.04.2026	Satveer Singh	Approach road / transport route	No recurring roadkill or major wildlife crossing concern reported; site is road-influenced	Rating 1–2	Completed
8	Panchayat / local representative consultation	06.04.2026	Sukhveer Ji	Village / local community	No material community biodiversity concern reported; annual review considered adequate	Rating 1–2	Completed
9	Worker consultation	07.04.2026	Vinay, Vikas, Hariom, Yogesh, Pinki	Production, maintenance, utility, store and admin areas	No significant species, protected habitat or biodiversity incident reported within work areas	Rating 1–2	Completed
10	Greenbelt / area-	07.04.2026	Bhupendra, Sunil,	Main gate,	General plantation	Rating 1–2	Completed

	level observati on		Ramphal, Mohit, Satish	boundary plantation , open land, drain side, garden / lawn	and open- area observati ons complete d; no significant biodiversi ty issue found		
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9.7 Detailed Stakeholder Consultation Register

Sr. No.	Date	Stake holder Name / Group	Stake holder Type	Locati on	Cons ultati on Meth od	Key Biodi versit y Obser vatio n/ Conc ern	Ecosy stem Servic e Link	Rating	Actio n Requi red	Resp onsibi lity	Statu s
1	06.04 .2026	Bhup endra , Sunil, Ajay	Secur ity	Main gate / boun dary	Interv iew	No signifi cant wildli fe move ment, snake incide nt, prote cted fauna or wildli fe confli ct repor ted. Occas ional com mon birds / reptil es may occur .	Com mon fauna obser vatio n / no- harm appro ach	1-2	Maint ain wildli fe obser vatio n recor d if any sighti ng occur s	EHS / Secur ity	Comp leted

2	06.04 .2026	Satish , Jogen dra	Gard eners	Gree nbelt	Field walk / interv iew	Gree nbelt / plant ation obser ved as norm al site-level veget ation. No signifi cant rare flora or major invasi ve weed conce rn repor ted.	Gree nbelt, shade , dust buffe ring	1-2	Conti nue annu al green belt and weed revie w	Admi n / EHS	Comp leted
3	06.04 .2026	Nare ndra, Mohi t, Kama l	Hous ekee ping / cante en interf ace	Wast e / cante en area	Interv iew	No major roden t, stray dog, scave nger or open waste biodi versit y conce rn repor ted. Routi ne hous ekee ping consi dered	Wast e contr ol / pest-attract ion preve ntion	1-2	Conti nue hous ekee ping and annu al waste / pest revie w	Admi n / Hous ekee ping	Comp leted

						adequate.					
4	06.04.2026	Pradip	Maintenance	Drain / utility area	Field walk	No significant wetland habitat, amphibian habitat or drainage-linked biodiversity concern identified.	Drainage / storm water regulation	1-2	Annual drain / water stagnation review	Maintenance / EHS	Completed
5	06.04.2026	Rajendra Kumar	Near by farmer	Near by agricultural area	Interview	Agriculture exists nearby; no significant crop, pollination, dust or drainage-related biodiversity concern reported.	Agriculture / dust / drainage interface	1-2	Record any future concern if raised	EHS / Management	Completed
6	06.04.2026	Vikram Kinha	Near by resident	Near by village /	Interview / meeting	No significant wildlife	Community environment	1-2	Maintenance concern	HR / EHS	Completed

				settle ment		fe confli ct, cultur al tree conce rn or biodi versit y- relate d com munit y issue repor ted.	onme nt / trees / water		recor ding mech anism		
7	06.04 .2026	Satve er Singh	Trans port repre senta tive	Appr oach road	Interv iew	No recur ring roadk ill, major wildli fe crossi ng or trans port- relate d biodi versit y conce rn repor ted.	Road side fauna / dust interf ace	1-2	Maint ain safe drivin g and routi ne dust contr ol	Logist ics / EHS	Comp leted
8	06.04 .2026	Sukhv eer Ji	Panc hayat / local repre senta tive	Villag e / com munit y	Meeti ng	No mate rial com munit y biodi versit y conce rn repor ted.	Com munit y envir onme nt / local biodi versit y	1-2	Annu al revie w; recor d conce rn if any arises	Mana geme nt / EHS	Comp leted

						Site considered low sensitivity from community perspective.					
9	07.04.2026	Vinay	Worker	Production / FFM	Interview	No significant biodiversity issue or species incident reported in production area.	Work-area awareness	1	Continue basic biodiversity awareness	EHS / HR	Completed
10	07.04.2026	Vikas	Worker	Maintenance	Interview	No significant wildlife / reptile / drain-related issue reported by maintenance worker.	Drainage / maintenance awareness	1–2	Continue annual drain review	Maintenance / EHS	Completed

11	07.04 .2026	Hario m	Worker	Utility / WTP / ETP	Interview	No significant amphibian, water body or wildlife concern reported from utility area.	Water / utility area	1	Maintain routine housekeeping	Utility / EHS	Completed
12	07.04 .2026	Yogesh	Worker	Store / yard	Interview	No significant rodent / snake / storage-area biodiversity issue reported.	Storage housekeeping	1–2	Maintain yard housekeeping	Stores / EHS	Completed
13	07.04 .2026	Pinki	Worker	Admin / office	Interview	No biodiversity concern reported from office / admin area.	Awareness / green surroundings	1	Include in annual awareness	HR / EHS	Completed

9.8 Security Staff Wildlife Observation Summary

Sr. No.	Date	Location	Observation Area	Species / Animal	Rating	Interpretation	Action Taken /	Status
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				Observation			Required	
1	07.04.2026	Main gate	Entry / boundary area	No significant wildlife observation reported	1	Very low relevance	Record if future sighting occurs	Completed
2	07.04.2026	Boundary wall	Boundary area	No recurring wildlife movement reported	1	Very low relevance	Maintain observation by security	Completed
3	07.04.2026	Greenbelt	Plantation area	Common birds / insects may occur occasionally	2	Low / occasional relevance	No-harm instruction	Completed
4	07.04.2026	Waste area	Housekeeping / canteen interface	No major scavenger / pest issue reported	1	Very low relevance	Maintain housekeeping	Completed
5	07.04.2026	Drain area	Drain / utility side	No significant reptile / amphibian issue reported	1–2	Very low to low relevance	Annual drain inspection	Completed
6	07.04.2026	Parking / road	Vehicle movement area	No roadkill issue reported	1	Very low relevance	Maintain safe movement	Completed

9.9 Gardener / Greenbelt Consultation Summary

Sr. No.	Date	Name	Area Covered	Tree / Plant Observation	Invasive Weed Observation	Butterfly / Bee Activity	Plant Health Issue	Rating	Action Required	Status
1	07.04.2026	Bhuendra	Main gate	Plantation / greenery observed as normal site vegetation	No major uncontrolled invasive spread reported	Occasional common insects possible	No significant issue reported	1-2	Maintain annual review	Completed
2	07.04.2026	Sunil	Boundary plantation	Boundary plantation available	No major issue reported	Occasional common pollinators possible	No significant issue reported	1-2	Maintain boundary plantation	Completed
3	07.04.2026	Rampal	Open land	Open area present; annual maintenance required	No major uncontrolled spread reported	Limited relevance	No significant issue reported	1-2	Annual weed / house keeping check	Completed
4	07.04.2026	Mohit	Drain side	Drain-side area reviewed	No significant drain-side biodiversity issue reported	Low relevance	No significant issue reported	1	Annual drain review	Completed
5	07.04.2026	Satish	Garden / lawn	Garden / lawn maintained	No significant invasive	Common insects / butterfly	No significant issue	2	Maintain plantation /	Completed

					concern reported	flies may occur	reported		green belt	
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9.10 Community / Farmer Consultation Summary

Sr. No.	Date	Name / Group	Village / Location	Land / Livelihood Link	Ecosystem Service Dependency	Biodiversity Observation	Concern Raised	Rating	Company Response / Action	Closure Status
1	06.04. 2026	Rajendra Kumar	Nearby agricultural area	Agriculture	Groundwater / pollination / soil / crops	No significant biodiversity concern reported	No material concern	1-2	Maintain dust, drainage and house keeping controls	Closed
2	06.04. 2026	Balveer	Roharai / nearby agricultural context	Agriculture	Crop quality / dust / water	No significant crop or biodiversity concern reported	No material concern	1-2	Record future concern, if any	Closed
3	06.04. 2026	Vikam Kinha	Nearby village / settlement	Community	Trees / water / local environment	No significant community biodiversity issue reported	No material concern	1	Maintain annual review	Closed
4	06.04. 2026	Sukhvinder Ji	Panchayat / local community	Community representation	Local environment / biodiversity	No material local biodiversity concern	No material concern	1	Continue basic communication and	Closed

						rn report ed			annua l revie w	
5	06.04. 2026	Satvee r Singh	Trans port route / appro ach road	Trans port interfa ce	Roadsi de enviro nment / dust	No recurri ng roadki ll / wildlif e crossi ng issue report ed	No materi al conce rn	1	Maint ain safe move ment and house keepi ng	Closed

9.11 Consultation Output Summary

Sr. No.	Stakeholde r Group	Number Consulted	Key Biodiversit y Issues Identified	Key Ecosystem Services Identified	Material Concern?	Action Integrated in BAP / KPI?
1	Security staff	3	No significant wildlife movement / protected fauna concern reported	No-harm wildlife observatio n	No	Yes – wildlife observatio n register
2	Gardeners / greenbelt staff	2 direct + area- level observations	Greenbelt normal; no major invasive issue reported	Greenbelt, shade, dust buffering	No	Yes – annual greenbelt and weed review
3	Housekeep ing / canteen interface	3	No major pest / scavenger concern reported	Waste and pest- attraction control	No	Yes – annual housekeep ing review
4	Maintenan ce	1	No significant drain / wetland / amphibian issue reported	Drainage / stormwate r control	No	Yes – annual drain review

5	Workers	5	No significant biodiversity issue in work areas	Awareness and no-harm behaviour	No	Yes – annual awareness
6	Nearby farmers	2	No significant crop / dust / biodiversity concern reported	Agriculture interface	No	Yes – record concern if received
7	Nearby resident / local representative	2	No significant community biodiversity concern reported	Local environment	No	Yes – annual review
8	Transport representative	1	No roadkill / wildlife crossing concern reported	Roadside interface	No	Yes – safe movement awareness
9	Overall consultation	19 persons / representatives	No material biodiversity concern identified	Greenbelt, drainage, housekeeping and agriculture interface	No	Yes – annual KPI monitoring

9.12 Linkage of Consultation Findings to Biodiversity Action Plan

Sr. No.	Consultation Finding	Source Stakeholder	Risk / Opportunity	BAP / KPI Action	Responsibility	Status
1	No significant wildlife movement reported	Security	Very low wildlife risk	Maintain observation register if sighting occurs	EHS / Security	Included
2	Greenbelt maintained; no major invasive spread reported	Gardeners	Greenbelt improvement opportunity	Annual greenbelt and weed review	Admin / EHS	Included
3	No major waste / pest issue reported	Housekeeping	Pest-attraction prevention	Annual waste / housekeeping review	Admin	Included

4	No significant drain / wetland issue reported	Maintenance	Drainage control	Annual drain / stagnation review	Maintenance / EHS	Included
5	No significant work-area biodiversity issue	Workers	Awareness opportunity	Annual biodiversity toolbox talk	EHS / HR	Included
6	Nearby agriculture present but no material concern	Farmers	Agriculture interface	Record concern if received; maintain dust / drainage controls	EHS / Management	Included
7	No community biodiversity concern reported	Resident / Panchayat	Community interface	Maintain annual review and concern recording	HR / EHS	Included
8	No roadkill / wildlife crossing concern reported	Transport representative	Road interface	Maintain safe movement	Logistics / EHS	Included

9.13 Biodiversity Grievance and Concern Outcome

Sr. No.	Concern Type	Raised During Consultation?	Severity	Immediate Response	Corrective Action Required	Closure Status
1	Dust on crops / vegetation	No material concern raised	Low	Routine controls noted	No additional action required	Closed
2	Snake / wildlife encounter	No incident reported	Low	No-harm approach noted	Maintain observation record	Closed
3	Drainage / water contamination concern	No material concern raised	Low	Annual drain review planned	No additional action required	Closed
4	Invasive weed spread	No major uncontrolled spread reported	Low	Annual weed inspection planned	No additional action required	Closed

5	Tree cutting / greenbelt concern	No concern raised	Low	Greenbelt maintenance noted	No additional action required	Closed
6	Roadkill / wildlife crossing	No concern raised	Low	Safe movement noted	No additional action required	Closed
7	Pest / scavenger attraction	No major issue reported	Low	Housekeeping controls noted	No additional action required	Closed

9.14 Consultation Evidence

The following evidence supports the consultation process:

Stakeholder consultation register with names and dates.

Limited physical survey observations.

Fauna / image reference rating survey.

Flora / image reference rating survey.

Greenbelt and site observation records.

Worker consultation records.

Security and gardener consultation records.

Community / farmer consultation records.

Annual KPI linkage.

These evidence items support the conclusion that consultation has been completed and no material biodiversity concern was identified.

9.15 Future Consultation Frequency

Considering the very low biodiversity risk profile of the site, intensive or frequent consultation is not required.

Consultation / Review Type	Frequency	Remarks
Internal worker / security / gardener review	Annual	Along with biodiversity KPI review
Wildlife observation review	As observed / annual summary	Only if any sighting or incident occurs
Farmer / community concern review	Annual or complaint-based	No routine detailed consultation required unless concern arises
Panchayat / local representative interaction	As required	Only if material concern or project change occurs
Forest / Wildlife Department communication	As required	Only if protected species incident occurs

Biodiversity expert review	Not required for routine monitoring	Site is very low biodiversity risk; internal review adequate
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9.16 Consultation Conclusion

Stakeholder consultation confirms the very low biodiversity risk conclusion for GLS Aluminium Industries Pvt. Ltd.

The consultation found:

No material wildlife concern.

No significant snake / reptile incident.

No protected fauna concern.

No major invasive weed issue.

No crop or agriculture-related biodiversity concern.

No drainage-related biodiversity concern.

No pest / scavenger issue of material concern.

No community biodiversity grievance.

No roadkill or wildlife crossing concern.

No work-area biodiversity concern.

Therefore, stakeholder consultation supports the conclusion that annual internal review and simple biodiversity KPI monitoring are adequate for GLS.

CHAPTER 10

Mitigation Hierarchy Evaluation

10.1 Introduction

The mitigation hierarchy is a structured approach used in biodiversity management to prevent, reduce and manage impacts on biodiversity. It normally follows the sequence of avoid, minimise, restore, rehabilitate and offset. The first priority is always to avoid impacts wherever possible. Where impacts cannot be fully avoided, they should be minimised. Where residual impacts remain, restoration or rehabilitation may be considered. Offsets are used only where significant residual biodiversity impacts remain after all other steps have been applied.

For GLS Aluminium Industries Pvt. Ltd., the mitigation hierarchy has been applied in a proportionate and practical manner. The site has been assessed as a very low biodiversity risk industrial site. No significant biodiversity feature, forest habitat, wetland habitat, protected habitat, wildlife corridor, rare flora patch, high biodiversity area or material ecosystem service dependency was identified within or immediately surrounding the site. Therefore, the mitigation hierarchy does not require complex offsetting, compensatory habitat creation or intensive ecological restoration.

The appropriate mitigation approach for GLS is to maintain existing controls, avoid unnecessary harm, minimise local site-level risks, maintain the greenbelt, prevent invasive weed spread, control waste and pest-attraction conditions, review drainage annually and maintain a no-harm approach for occasional common fauna or reptiles.

10.2 Purpose of Mitigation Hierarchy Evaluation

The purpose of this chapter is to evaluate how the mitigation hierarchy applies to GLS operations and to define practical biodiversity controls suitable for the site.

The objectives are:

- To confirm that biodiversity impact avoidance has been considered.
- To identify site-level opportunities to minimise biodiversity-related risks.
- To evaluate whether restoration or improvement actions are required.
- To determine whether biodiversity offsetting is applicable.
- To define residual biodiversity risk after controls.
- To establish practical actions for the Biodiversity Action Plan and KPI monitoring system.
- To ensure alignment with ASI biodiversity expectations and good environmental management practice.

10.3 Mitigation Hierarchy Principle

The mitigation hierarchy applied in this assessment is as follows:

- Avoid biodiversity impacts wherever possible.
- Minimise impacts that cannot be fully avoided.
- Restore or improve site-level conditions where practical.
- Offset only where significant residual biodiversity impacts remain.
- Monitor and review controls periodically.

For GLS, the focus is mainly on avoidance, minimisation, maintenance and annual review. Restoration and offsetting are not required because no significant biodiversity impact has been identified.

10.4 Site Context for Mitigation Hierarchy

The GLS site is an established industrial facility located in a developed, road-influenced, semi-urban and agriculture-surrounded landscape near Rewari. The site is not located within a protected area, Ramsar wetland, forest habitat, wetland habitat or high biodiversity area.

The site has approximately 14 percent built-up area and approximately 86 percent greenbelt / open area. The greenbelt and open area provide positive site-level environmental value, but they are not classified as natural high biodiversity habitat. They are managed as plantation, open area and environmental buffer zones.

The limited physical survey and stakeholder consultation did not identify any significant biodiversity concern. Therefore, the mitigation hierarchy is applied as a good-practice management tool rather than as a response to a major biodiversity impact.

10.5 Mitigation Hierarchy Application Summary

Mitigation Step	Application to GLS	Requirement Level	Conclusion
Avoid	Avoid unnecessary harm to vegetation, common fauna, reptiles and site greenery	Applicable	Basic avoidance controls required
Minimise	Minimise local risks from weeds, drainage, waste, dust and poor housekeeping	Applicable	Annual monitoring adequate
Restore / Improve	Maintain and improve greenbelt, replace weak plants, prefer native species	Applicable as improvement	No ecological restoration required
Offset	Compensate significant residual biodiversity impact	Not applicable	No offset required
Monitor	Review greenbelt, weeds, drainage, waste, wildlife observation and awareness	Applicable	Annual KPI review adequate

10.6 Avoidance Measures

Avoidance is the most important step in biodiversity management. For GLS, avoidance is mainly related to preventing unnecessary disturbance to site vegetation, avoiding harm to common fauna and avoiding creation of conditions that may attract pests or cause nuisance.

Sr. No.	Avoidance Area	Avoidance Requirement	Current / Proposed Practice	Status

1	Protected habitats	Avoid operation in protected habitat	No protected habitat identified within site	Green
2	Forest / wetland habitat	Avoid disturbance to natural forest or wetland	No forest or wetland habitat identified	Green
3	Tree cutting	Avoid unnecessary cutting of healthy trees	Tree cutting, if any, to be controlled through internal approval	Green
4	Wildlife harm	Avoid intentional harm to birds, reptiles, snakes or common fauna	No-harm instruction to be communicated	Green
5	Invasive planting	Avoid promotion of invasive / unsuitable species	Prefer native / locally suitable plantation	Yellow
6	Open waste	Avoid open waste that attracts rodents, dogs, crows or flies	Housekeeping and waste controls maintained	Green
7	Drain blockage	Avoid drainage conditions that create stagnation	Drain review to be included annually	Yellow
8	Poor housekeeping	Avoid scrap / waste accumulation that creates pest habitat	Routine housekeeping to continue	Green
9	Excessive lighting	Avoid unnecessary lighting disturbance where not required	Maintain normal industrial lighting controls	Green
10	Uncontrolled chemical storage	Avoid spill exposure to soil / plants	Maintain spill prevention and storage controls	Green

10.7 Minimisation Measures

Minimisation is required where biodiversity-related interactions cannot be fully avoided. At GLS, potential interactions are low and mainly linked to greenbelt, weeds, drainage, waste, common reptiles, insects and plantation management.

Sr. No.	Risk / Interaction	Minimisation Measure	Responsibility	Frequency
1	Greenbelt deterioration	Annual greenbelt inspection and plant health review	Admin / EHS	Annual
2	Invasive weed growth	Annual invasive weed inspection and removal if observed	Admin / Garden contractor	Annual
3	Drainage stagnation	Annual drain and water stagnation inspection	Maintenance / EHS	Annual, preferably monsoon-linked
4	Pest / scavenger attraction	Housekeeping and waste control review	Admin / Housekeeping	Annual
5	Occasional wildlife / reptile sighting	No-harm response and reporting instruction	Security / EHS	As observed
6	Dust effect on vegetation	Maintain greenbelt and housekeeping controls	Admin / EHS	Annual review
7	Poor plantation selection	Prefer native / locally suitable species	Admin / Garden contractor	During plantation
8	Lack of worker awareness	Annual biodiversity awareness / toolbox talk	EHS / HR	Annual
9	Crop / community concern	Record and review concern if received	EHS / Management	Complaint-based / annual
10	Biodiversity documentation gap	Maintain annual KPI and review record	EHS	Annual

10.8 Restoration and Improvement Measures

Restoration is generally required where a site has damaged habitat or where biodiversity impact has occurred. For GLS, no significant habitat damage or biodiversity impact was identified. Therefore, formal ecological restoration is not required.

However, improvement measures are useful to maintain and strengthen the site-level greenbelt and open-area quality.

Sr. No.	Improvement Area	Proposed Improvement	Reason	Status
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1	Weak / dead plants	Replace weak or dead plants where observed	Maintains greenbelt quality	Annual
2	Native / suitable plantation	Prefer Neem, Khejri, Shisham, Karanj, Siris, Kachnar or other locally suitable species	Improves plantation value	Planned
3	Invasive weed removal	Remove Parthenium, Lantana, Ipomoea or Prosopis juliflora if spreading	Prevents open-area degradation	Annual watch
4	Drainage improvement	Clean drains and avoid stagnation	Prevents nuisance vegetation and insects	Annual
5	Waste area improvement	Prevent open food / organic waste exposure	Reduces pest attraction	Ongoing
6	Pollinator-friendly plantation	Include flowering suitable plants where feasible	Supports common insects and butterflies	Planned
7	Boundary plantation strengthening	Maintain plantation along boundary where feasible	Supports dust buffering and visual improvement	Ongoing
8	Awareness improvement	Include simple fauna / flora awareness in toolbox talk	Supports no-harm behaviour	Planned

10.9 Offset Applicability

Biodiversity offsetting is not applicable to GLS under the current assessment.

Offsetting is normally considered where significant residual adverse impacts remain after avoidance, minimisation and restoration. No such significant residual biodiversity impact has been identified at GLS.

The reasons are:

The site is not located in a protected area.

The site is not located in a Ramsar wetland.

The site is not located in forest habitat.

The site is not located in natural wetland habitat.

No high biodiversity habitat was identified.

No wildlife corridor was identified.

No significant flora or fauna habitat was identified.

No material stakeholder biodiversity concern was raised.

No significant residual adverse biodiversity impact exists.

Therefore, biodiversity offset or compensation is not required.

10.10 Mitigation Hierarchy Evaluation Table

Sr. No.	Biodiversity Aspect	Avoid	Minimise	Restore / Improve	Offset Required?	Residual Risk
1	Protected area impact	Site not located inside protected area	Maintain screening evidence	Not required	No	Very low
2	Forest / wetland impact	No forest / wetland habitat within site	Maintain annual site review	Not required	No	Very low
3	Greenbelt	Avoid unnecessary tree loss	Annual inspection	Replace weak plants	No	Low
4	Plantation species selection	Avoid unsuitable / invasive species	Prefer locally suitable species	Improve future plantation mix	No	Low
5	Invasive weeds	Avoid spread through neglect	Annual weed inspection	Remove if observed	No	Low
6	Drainage / stagnation	Avoid blockage	Annual drain review	Clean / improve if required	No	Low
7	Waste / pest attraction	Avoid open waste	Housekeeping and waste control	Improve waste practices if needed	No	Low
8	Wildlife / reptiles	Avoid intentional harm	No-harm response	Awareness improvement	No	Low
9	Dust / vegetation interface	Avoid excessive dust accumulation where feasible	Maintain greenbelt	Strengthen plantation if required	No	Low
10	Stakeholder concern	Avoid nuisance and	Record and review concern	Corrective action if required	No	Low

		unmanaged impacts				
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10.11 Residual Risk After Mitigation

After application of avoidance, minimisation and improvement measures, the residual biodiversity risk remains very low.

Sr. No.	Aspect	Pre-control Risk	Control Applied	Residual Risk	Status
1	Protected area / ESZ / Ramsar impact	Very low	Screening and annual review	Very low	Green
2	Greenbelt deterioration	Low	Annual greenbelt review	Very low to low	Green
3	Invasive weeds	Low	Annual weed inspection	Very low to low	Green
4	Drainage stagnation	Low	Annual drain review	Low	Yellow
5	Waste and pest attraction	Low	Housekeeping control	Very low	Green
6	Wildlife / reptile harm	Low	No-harm instruction	Low	Yellow
7	Plantation quality	Low	Native / suitable species preference	Low	Yellow
8	Stakeholder concern	Low	Concern recording	Low	Yellow
9	Overall biodiversity risk	Very low	Annual monitoring and review	Very low / controlled	Green

10.12 Biodiversity Management Controls Derived from Mitigation Hierarchy

The mitigation hierarchy results in the following practical biodiversity controls for GLS:

Maintain protected-area and land-use screening evidence.

Maintain annual greenbelt review.

Maintain annual plant health and survival review.

Prefer native / locally suitable species in future plantation.

Avoid new plantation of invasive or low biodiversity value species.

Maintain annual invasive weed inspection.

Maintain annual drainage / water stagnation review.

Maintain waste and housekeeping controls.

Maintain pest-attraction prevention.

Maintain no-harm wildlife instruction for workers and security.

Record wildlife / reptile sighting if any.

Conduct annual biodiversity awareness / toolbox talk.

Review biodiversity KPIs annually.

Include biodiversity performance in management review.

10.13 Mitigation Hierarchy Link with BAP

The Biodiversity Action Plan is directly linked to the mitigation hierarchy.

Mitigation Hierarchy Step	BAP Link
Avoid	No-harm wildlife instruction, avoid unnecessary tree cutting, avoid invasive plantation
Minimise	Annual greenbelt, drainage, waste and weed review
Restore / Improve	Replace weak plants, improve plantation mix, strengthen greenbelt
Offset	Not applicable
Monitor	Annual KPI review, stakeholder concern review, management review

10.14 Expert Review Requirement

Routine biodiversity expert review is not required for GLS because the site is very low risk and no significant biodiversity feature was identified.

Expert support may be considered only in the following conditions:

Protected species incident.

Repeated snake / wildlife rescue issue.

Major land expansion.

Large-scale tree cutting.

New drainage discharge pathway.

Significant invasive weed spread.

Community biodiversity complaint.

Change in protected-area or ESZ context.

Until such condition arises, annual internal review is adequate.

10.15 Chapter Conclusion

The mitigation hierarchy evaluation confirms that GLS Aluminium Industries Pvt. Ltd. does not require biodiversity offset, compensation, complex ecological restoration or intensive species monitoring.

The appropriate mitigation approach is practical and proportionate. It includes avoidance of unnecessary harm, minimisation of site-level risks, maintenance of greenbelt, annual weed and drainage review, housekeeping control, no-harm wildlife awareness and annual biodiversity KPI review.

After these controls, residual biodiversity risk remains very low / controlled



GLS BIODIVERSITY IMPACT ASSESSMENT REPORT

CHAPTER 11

Biodiversity Management Framework

11.1 Introduction

A biodiversity management framework provides the structure through which biodiversity risks, impacts, actions and monitoring requirements are managed. For GLS Aluminium Industries Pvt. Ltd., the framework has been designed as a simple, practical and audit-ready system suitable for a very low biodiversity risk industrial site.

The framework does not create unnecessary complexity. It is not designed as a protected-area management programme, forest conservation plan or advanced ecological monitoring system. Instead, it is a site-level management framework focused on greenbelt, open area, drainage, waste, invasive weeds, wildlife observation, stakeholder concern and annual review.

The framework supports ASI Performance Standard biodiversity expectations, GRI biodiversity disclosure readiness and internal sustainability governance.

11.2 Purpose of the Biodiversity Management Framework

The purpose of the biodiversity management framework is:

- To define how GLS will manage biodiversity risks and opportunities.
- To assign responsibilities for biodiversity-related actions.
- To ensure annual monitoring of greenbelt, plant health, weeds, drainage, waste and wildlife observations.
- To maintain audit evidence for ASI and sustainability review.
- To link risk assessment findings with the Biodiversity Action Plan.
- To provide a simple method for review and continual improvement.
- To ensure biodiversity concerns, if any, are recorded and acted upon.

11.3 Framework Design Principle

The framework has been designed using the following principles:

- Proportionate to risk.
- Evidence-based.
- Simple to implement.
- Focused on site relevance.
- Linked with annual KPI monitoring.
- Integrated with existing EHS / Admin / Maintenance systems.
- Suitable for audit evidence.
- Avoids unsupported ecological claims.

Allows escalation if future risk changes.

11.4 Biodiversity Management Policy Direction

GLS should maintain a simple biodiversity management direction as part of its sustainability and EHS approach.

Suggested policy direction:

GLS Aluminium Industries Pvt. Ltd. recognises the importance of biodiversity and ecosystem services in responsible industrial operations. The company shall maintain site-level biodiversity controls appropriate to its location, operational context and risk profile. The company shall protect and maintain its greenbelt and open areas, avoid intentional harm to wildlife, prevent unmanaged invasive weed spread, maintain drainage and housekeeping controls, record biodiversity observations where relevant and review biodiversity performance annually.

This direction is sufficient for the current very low-risk site context.

11.5 Biodiversity Governance Structure

The biodiversity management framework shall be governed through existing site-level functions. A separate biodiversity committee is not necessary for routine implementation because the site has very low biodiversity risk.

Function	Biodiversity Responsibility
Top Management	Approve biodiversity approach, review annual performance and provide resources where required
EHS Department	Maintain biodiversity report, risk register, KPI monitoring and annual review records
Admin Department	Manage greenbelt, plantation, housekeeping and site service controls
Maintenance Department	Review drains, water stagnation and utility-related biodiversity interfaces
Security Team	Record wildlife / reptile sightings if any and follow no-harm response
Housekeeping / Canteen	Prevent waste-related pest and scavenger attraction
Garden Contractor	Maintain plantation, identify plant health issues and support weed removal
HR Department	Support annual biodiversity awareness / toolbox talk
Workers / Contractors	Follow no-harm instructions and report biodiversity observations if any
Management Review Team	Review biodiversity status annually

11.6 Biodiversity Management Elements

The GLS biodiversity management framework includes the following elements:

Biodiversity risk and impact assessment.

Protected area / ESZ / Ramsar screening.

Land-use and site-area review.

Flora and fauna baseline.

Ecosystem services assessment.

Stakeholder consultation.

Mitigation hierarchy evaluation.

Biodiversity Action Plan.

Annual KPI monitoring.

Greenbelt management.

Invasive weed control.

Drainage and water stagnation review.

Waste and pest-attraction control.

Wildlife no-harm instruction.

Biodiversity awareness.

Annual management review.

11.7 Integration with Existing Management Systems

The biodiversity framework should be integrated with existing EHS, sustainability, housekeeping, maintenance and management review systems. This avoids creating a separate and heavy system.

Existing System / Process	Biodiversity Integration
EHS management	Biodiversity risk register, incident review, annual monitoring
Greenbelt / garden maintenance	Plantation health, native species preference, invasive weed review
Maintenance system	Drainage and water stagnation review
Housekeeping system	Waste and pest-attraction prevention
Security system	Wildlife sighting and no-harm response
HR / training system	Annual awareness / toolbox talk
Management review	Annual biodiversity KPI review
Stakeholder grievance process	Biodiversity-related concern recording
Change management	Biodiversity screening before major land-use change or expansion

11.8 Biodiversity Management Controls

Sr. No.	Control Area	Control Requirement	Responsibility	Record
1	Greenbelt maintenance	Maintain plantation and open area	Admin / Garden contractor	Greenbelt inspection record

2	Plant health	Review weak / dead plants	Admin / Garden contractor	Plant health record
3	Native / suitable plantation	Prefer locally suitable species	Admin / EHS	Plantation register
4	Invasive weeds	Identify and remove invasive weeds if observed	Admin / EHS	Weed inspection record
5	Drainage	Avoid stagnation and blockage	Maintenance / EHS	Drain inspection record
6	Waste control	Avoid open waste and pest attraction	Admin / Housekeeping	Housekeeping inspection
7	Wildlife observation	Record sightings if any	Security / EHS	Wildlife observation register
8	No-harm instruction	Prevent intentional harm to birds, reptiles or animals	EHS / HR / Security	Awareness record
9	Stakeholder concern	Record biodiversity concerns if any	EHS / HR	Grievance / concern record
10	Annual review	Review KPIs and actions	EHS / Management	Review minutes

11.9 Biodiversity Management Zones

The site shall be managed through practical biodiversity management zones.

Zone	Description	Management Focus
Zone A – Operational / Built-up Zone	Production, office, utilities, stores and paved areas	Housekeeping, spill prevention and pest control
Zone B – Greenbelt Zone	Plantation, garden and boundary vegetation	Plant health, native species, greenbelt maintenance
Zone C – Open Area Zone	Open / unbuilt areas	Weed control, housekeeping and future plantation opportunity
Zone D – Drainage Zone	Drains, stormwater and possible stagnation points	Drain cleaning, stagnation prevention and observation
Zone E – Waste / Canteen Interface Zone	Waste, canteen and housekeeping areas	Pest and scavenger attraction control
Zone F – Traffic / Road Interface Zone	Internal roads, parking and approach road	Safe movement, dust control and no roadkill concern
Zone G – External Interface Zone	Nearby agriculture, roads and local community	Concern recording and annual review

[Insert Figure 11.1: Site Biodiversity Management Zone Map]

11.10 Greenbelt Management Framework

Greenbelt is the most important biodiversity-relevant feature at GLS. The greenbelt provides positive environmental value even though it is not a natural high biodiversity habitat.

Greenbelt management shall include:

Annual review of greenbelt condition.

Identification of weak or dead plants.

Replacement plantation where required.

Preference for native or locally suitable species.

Avoidance of invasive or unsuitable species.

Basic pruning and maintenance.

Observation of common birds or insects if any.

Removal of unmanaged invasive weeds if observed.

Maintenance of photographic evidence.

[Insert Photo 11.1: Greenbelt Area]

11.11 Native and Locally Suitable Plantation Approach

Future plantation should prefer species that are locally suitable, hardy and useful for industrial greenbelt conditions. Based on the flora rating exercise, Neem is highly suitable. Other species such as Peepal, Pilkhan, Khair, Khejri, Jaal, Shisham, Arjun, Karanj, Siris, Kachnar and Papri may be considered depending on space, soil, water and site conditions.

Plantation should avoid creating future invasive risk. Exotic or low biodiversity value species such as Conocarpus, Eucalyptus, ornamental palms, Subabul and Prosopis juliflora should not be promoted as biodiversity enhancement species unless site management has specific reason and control measures.

11.12 Invasive Species Management Framework

Invasive species management shall be handled as a watch-list system. No major uncontrolled invasive spread has been identified at the site. Therefore, annual review is adequate.

Watch-list species include:

Prosopis juliflora.

Leucaena leucocephala.

Lantana camara.

Parthenium hysterophorus.

Ipomoea carnea.

Conocarpus spp.

Eucalyptus spp.

Other exotic / unsuitable ornamental species.

If any invasive species is observed spreading in open areas, drain sides or greenbelt edges, it should be removed or controlled through routine maintenance.

11.13 Wildlife and Fauna Management Framework

The site does not contain significant wildlife habitat. However, common birds, insects, rodents, lizards or occasional snakes may occur in industrial and agricultural landscapes.

Wildlife management shall include:

No intentional killing or harm to wildlife.

Reporting of snake / reptile sightings to EHS or security.

Safe isolation of area if needed.

Calling local rescue support where required.

No handling of snakes by untrained persons.

Avoiding disturbance to active nests where practical.

Recording significant sightings, if any.

Training / awareness for security and workers.

This is sufficient for the current risk level.

11.14 Drainage and Water Stagnation Management

No natural wetland habitat was identified within the GLS site. Drainage and stormwater areas are therefore managed as industrial maintenance features, not as wetland habitats.

Drainage management shall include:

Annual drain inspection.

Review before or during monsoon where practical.

Removal of blockages.

Avoidance of long-term water stagnation.

Prevention of waste entering drains.

Observation of mosquito / weed growth.

Maintenance of drain inspection record.

Escalation if any discharge or contamination concern is identified.

11.15 Waste and Pest-Attraction Management

Waste and pest-attraction control is important for biodiversity management at industrial sites. Open waste, food waste, poor housekeeping or scrap accumulation may attract rodents, stray dogs, crows, flies and other scavengers.

GLS shall maintain:

Segregated waste storage.

Controlled canteen waste handling.

Routine housekeeping.

No open food waste accumulation.

Pest control where required.

Periodic inspection of waste areas.

Record of any pest-related concern.

This control supports biodiversity, hygiene and EHS performance.

11.16 Stakeholder Concern Management

Stakeholder consultation did not identify any material biodiversity concern. However, GLS should maintain the ability to record and review any future concern.

Biodiversity-related concerns may include:

Dust on crops or vegetation.

Drainage or water stagnation concern.

Wildlife / snake issue.

Tree cutting concern.

Invasive weed concern.

Pest / rodent concern.

Roadkill or wildlife crossing concern.

Community concern about greenbelt or local environment.

Such concerns should be recorded, reviewed and closed through the existing EHS / grievance or management review process.

11.17 Biodiversity Awareness Framework

Annual biodiversity awareness is sufficient for GLS. The awareness should be simple and practical.

Topics may include:

Importance of greenbelt.

No-harm approach to birds, reptiles and animals.

What to do if snake or wildlife is seen.

Avoiding damage to plants and trees.

Waste and pest-attraction prevention.

Reporting of biodiversity concerns.

Invasive weed observation.

Role of workers and contractors.

The awareness can be conducted as a toolbox talk, short training or EHS communication.

11.18 Biodiversity Documentation Framework

The following documents and records shall be maintained:

Biodiversity Risk, Impact and Management Assessment Report.

Protected area / ESZ / Ramsar screening record.

Land-use and GIS map evidence.

Flora and fauna rating records.

Stakeholder consultation records.

Biodiversity risk register.

Biodiversity impact matrix.

Mitigation hierarchy evaluation.

Biodiversity Action Plan.

Annual biodiversity KPI monitoring sheet.

Greenbelt inspection record.

Plantation / plant health record.

Invasive weed review record.

Drainage inspection record.

Waste / pest-attraction review.

Wildlife observation register, if any.

Biodiversity awareness record.

Annual management review record.

11.19 Biodiversity Performance Review

Biodiversity performance shall be reviewed annually. The annual review should include:

Status of greenbelt.

Status of plantation survival and plant health.

Any new plantation and species selection.

Invasive weed observation.

Drainage / water stagnation status.

Waste and pest-attraction status.

Wildlife / reptile sightings, if any.

Stakeholder biodiversity concerns, if any.

Awareness completed or pending.

Biodiversity KPI status.

Corrective action or improvement required.

The review may be included in the site EHS or sustainability management review.

11.20 Escalation Criteria

Although the site is very low risk, escalation is required if any material biodiversity issue arises.

Escalation triggers include:

Protected species sighting or injury.

Repeated snake / reptile incidents.

Major tree cutting proposal.

Significant invasive weed spread.

New wetland / waterbody impact concern.

Community complaint related to biodiversity.

Drainage contamination concern.

Large expansion or land-use change.

New legal requirement or protected-area notification affecting site.

Significant roadkill / wildlife crossing concern.

In such cases, the biodiversity risk register and action plan should be reviewed.

11.21 Framework Implementation Roadmap

Sr. No.	Action	Responsibility	Timeline	Evidence
1	Approve biodiversity assessment report	Management	Once	Approved report
2	Assign biodiversity review responsibility	Management / EHS	Once	Responsibility note
3	Maintain greenbelt inspection record	Admin / EHS	Annual	Inspection record
4	Maintain invasive weed review	Admin / Garden contractor	Annual	Weed review record
5	Maintain drainage review	Maintenance / EHS	Annual	Drain inspection record
6	Maintain waste / pest review	Admin / Housekeeping	Annual	Housekeeping record

7	Maintain wildlife observation register	Security / EHS	As observed	Observation register
8	Conduct biodiversity awareness	EHS / HR	Annual	Training / toolbox record
9	Review biodiversity KPIs	EHS / Management	Annual	KPI review sheet
10	Update BAP if needed	EHS	Annual / as required	Updated BAP

11.22 Chapter Conclusion

The biodiversity management framework for GLS Aluminium Industries Pvt. Ltd. is designed as a practical and proportionate system for a very low biodiversity risk industrial site.

The framework focuses on greenbelt maintenance, native / suitable plantation, invasive weed observation, drainage review, waste and pest-attraction control, wildlife no-harm awareness, stakeholder concern recording and annual KPI review.

The framework is adequate for ASI biodiversity compliance readiness, GRI biodiversity disclosure support and internal sustainability management. No separate complex biodiversity governance structure or routine biodiversity expert monitoring is required under the current site condition.

CHAPTER 12

Biodiversity Action Plan

12.1 Introduction

The Biodiversity Action Plan is the practical implementation part of this report. It converts the findings of the biodiversity risk assessment, ecosystem services assessment, stakeholder consultation, flora and fauna baseline, mitigation hierarchy and site-level review into clear actions for GLS Aluminium Industries Pvt. Ltd.

For many industrial biodiversity reports, the Biodiversity Action Plan becomes unnecessarily complex. Such complexity is not suitable for GLS because the site has been assessed as a very low biodiversity risk industrial site. The site is located near Rewari city, with road / highway influence, agricultural surroundings, semi-urban development and industrial land-use context. No significant biodiversity feature, forest habitat, wetland habitat, protected habitat, rare flora patch, wildlife corridor or high biodiversity ecosystem was identified within or immediately surrounding the site during the limited physical survey.

Therefore, this Biodiversity Action Plan has been designed as a realistic, practical and auditable action plan. It focuses on what is actually relevant for GLS: greenbelt maintenance, native / locally suitable plantation, plant health review, invasive weed watch, drainage and water stagnation control, waste and pest-attraction prevention, wildlife no-harm response, stakeholder concern recording and annual biodiversity review.

The plan is aligned with ASI Performance Standard biodiversity expectations and GRI biodiversity disclosure readiness, but it remains proportionate to the very low risk profile of the site.

12.2 Purpose of the Biodiversity Action Plan

The purpose of the Biodiversity Action Plan is to provide a structured mechanism for managing site-level biodiversity matters at GLS.

The plan is intended to:

- Translate assessment findings into practical actions.
- Maintain the very low biodiversity risk status of the site.
- Strengthen greenbelt and plantation management.
- Avoid future invasive species concerns.
- Maintain drainage and housekeeping controls.
- Avoid intentional harm to wildlife or reptiles.
- Record observations and stakeholder concerns, if any.
- Support annual biodiversity KPI monitoring.
- Provide evidence for ASI, customer and sustainability review.
- Support continual improvement without creating unnecessary ecological burden.

12.3 BAP Design Principle

The Biodiversity Action Plan has been designed using the following principles:

It shall be proportionate to actual biodiversity risk.

It shall be simple enough for site teams to implement.

It shall focus on annual monitoring rather than excessive frequency.

It shall not create false claims about high biodiversity value.

It shall not treat regional species as site-confirmed unless observed.

It shall consider greenbelt as a positive site-level environmental feature, not as a natural forest habitat.

It shall treat invasive and exotic species as watch-list items unless observed as actual site concerns.

It shall integrate stakeholder findings.

It shall support ASI and GRI readiness.

It shall remain flexible for review if future land use or biodiversity condition changes.

12.4 BAP Linkage with Assessment Findings

The Biodiversity Action Plan has been developed directly from the assessment findings.

Assessment Finding	BAP Response
Site has very low biodiversity risk	Maintain annual review and basic controls
No protected habitat identified within site	No protected-area-specific action required
No forest or wetland habitat identified	No forest / wetland restoration action required
Greenbelt and open area present	Maintain and improve greenbelt through annual review
Flora rating shows mostly low site relevance	Use flora list for plantation guidance, not conservation claim
Fauna rating shows mostly low site relevance	Maintain no-harm and observation-based approach
Invasive / exotic species are watch-list only	Annual invasive weed review adequate
No material stakeholder concern raised	Maintain concern recording and annual consultation review
Drainage is a maintenance interface	Annual drain and stagnation review
Waste and canteen areas may attract pests if unmanaged	Maintain housekeeping and pest-attraction controls
No high residual impact identified	Offset / compensation not required

12.5 BAP Scope

The scope of this Biodiversity Action Plan includes:

Greenbelt and plantation areas.

Open and unbuilt areas.

Boundary plantation.

Drainage and water stagnation areas.

Waste and canteen interface.

Housekeeping and pest-attraction controls.

Internal road and vehicle movement interface.

Security observation points.

Worker and contractor awareness.

Nearby agriculture and community concern recording.

Annual biodiversity KPI monitoring.

The BAP does not include ecological offset, habitat compensation, long-term wildlife population study, wetland restoration, protected-area management or forest conservation programme because such requirements are not applicable to the current GLS site condition.

12.6 BAP Time Horizon

The Biodiversity Action Plan shall operate on an annual review cycle. Since the site is very low risk, a yearly review is adequate.

The action plan may be reviewed earlier if any of the following occurs:

Major site expansion.

Change in land use.

New construction in greenbelt / open area.

Large tree cutting or plantation change.

Protected species sighting or incident.

Repeated snake / reptile issue.

Significant invasive species spread.

Community biodiversity complaint.

Drainage or water contamination concern.

New legal or protected-area notification affecting the site.

12.7 Biodiversity Action Plan – Master Table

Sr. No.	BAP Theme	Action Required	Risk / Opportunity Addressed	Responsibility	Frequency / Timeline	Evidence	Status
1	Greenbelt maintenance	Maintain existing greenbelt, plantation and landscaped areas	Maintains dust buffering, shade and site-level greenery	Admin / Garden contractor / EHS	Annual review	Greenbelt inspection record, photos	Ongoing

2	Plant health	Identify weak, dead or stressed plants and plan replacement where required	Prevents decline of plantation quality	Admin / Garden contractor	Annual	Plant health record	Ongoing
3	Native / suitable plantation	Prefer native or locally suitable species during future plantation	Improves plantation value and avoids unsuitable species	Admin / EHS	During plantation / annual review	Plantation register	Planned
4	Avoid invasive plantation	Avoid promoting invasive or low habitat value exotic species as biodiversity enhancement	Prevents future ecological concern	Admin / Garden contractor	During plantation	Species selection record	Planned
5	Invasive weed review	Inspect open areas, boundary and drain sides for invasive weeds	Prevents spread of Parthenium, Lantana, Ipomoea, Prosopis juliflora, etc.	Admin / EHS / Garden contractor	Annual	Weed inspection record	Ongoing
6	Drainage review	Inspect drains and water stagnation points	Prevents stagnant water, nuisance weeds and mosquito breeding	Maintenance / EHS	Annual, preferably monsoon-linked	Drain inspection record	Planned
7	Waste and pest control	Maintain housekeeping and controlled	Prevents rodents, dogs, flies, crows and	Admin / Housekeeping	Routine / annual review	Housekeeping record	Ongoing

		waste storage	scavenger attraction				
8	Wildlife no-harm approach	Communicate no intentional harm to birds, reptiles, snakes and animals	Prevents unsafe or harmful response to common fauna	EHS / HR / Security	Annual awareness / as needed	Toolbox talk record	Planned
9	Wildlife observation record	Record sightings or incidents if any	Supports evidence-based biodiversity monitoring	Security / EHS	As observed / annual summary	Wildlife observation register	Planned
10	Worker awareness	Conduct short biodiversity awareness / toolbox talk	Improves reporting and no-harm behaviour	EHS / HR	Annual	Attendance / awareness note	Planned
11	Stakeholder concern recording	Record any farmer, resident or worker biodiversity concern	Ensures response to ecosystem service issues	EHS / HR / Management	As received / annual review	Concern register	Ongoing
12	Annual KPI review	Review biodiversity KPIs and BAP progress	Maintains ASI / GRI readiness	EHS / Management	Annual	KPI sheet / review minutes	Planned
13	Photo evidence	Maintain photographs of greenbelt, open area, drainage and plantation	Supports audit evidence	EHS / Admin	Annual	Photo register	Planned
14	Management review	Present biodiversity status	Ensures leadership	EHS / Management	Annual	Management	Planned

		in annual review	p oversight			review minutes	
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12.8 Greenbelt Action Plan

The greenbelt is the most important biodiversity-relevant feature of the GLS site. Although it is not classified as a natural high biodiversity habitat, it provides positive environmental value. It helps improve site appearance, supports dust buffering, provides shade, creates limited common bird and insect habitat, and contributes to a better working environment.

[Insert Photo 12.1: Existing Greenbelt / Plantation Area]

Action	Description	Responsibility	Evidence
Annual greenbelt inspection	Review condition of trees, shrubs and open plantation areas	Admin / EHS	Inspection checklist
Plant health review	Identify weak, dry, dead or diseased plants	Garden contractor / Admin	Plant health record
Replacement plantation	Replace dead or weak plants where required	Admin / Garden contractor	Plantation record
Boundary plantation maintenance	Maintain boundary vegetation where feasible	Admin	Photos / maintenance record
Avoid excessive pruning	Ensure pruning does not damage plant health	Garden contractor	Maintenance record
Photo documentation	Maintain before / after or annual photos	EHS / Admin	Photo register

12.9 Native and Locally Suitable Plantation Action

The flora rating exercise showed that most species have very low to low site relevance, but the list is useful for future plantation planning. Neem was found to be the most suitable and commonly relevant species for the GLS site context. Other locally suitable species may be selected depending on space, soil condition, water availability and maintenance capacity.

Suggested species for future consideration include:

Neem.

Peepal where adequate space exists.

Pilkhan where suitable.

Khair.

Khejri.

Jaal / Peelu.

Shisham.

Arjun where water and space permit.

Karanj.

Siris.

Kachnar.

Papri.

The company should avoid claiming all listed species as site-confirmed unless planted or observed. The list should be used as a plantation guidance list.

12.10 Exotic and Invasive Species Action

The exotic and invasive flora references were treated as watch-list species. No major uncontrolled invasive spread was identified. Therefore, annual review is adequate.

Species on watch-list include:

Prosopis juliflora.

Leucaena leucocephala.

Lantana camara.

Parthenium hysterophorus.

Ipomoea carnea.

Conocarpus spp.

Eucalyptus spp.

Ornamental palms with low habitat value.

Silver Oak.

Poplar.

Cassia siamea.

Action	Requirement	Frequency	Evidence
Watch-list review	Inspect greenbelt, open land, drain side and boundary	Annual	Weed inspection record
Remove if spreading	Remove invasive weeds if observed spreading	As required	Maintenance record
Avoid promotion	Avoid planting invasive / unsuitable species as biodiversity action	During plantation	Plantation approval
Awareness	Inform gardeners and admin team about watch-list species	Annual / as required	Awareness note

12.11 Fauna and Wildlife Action Plan

The fauna rating exercise and stakeholder consultation confirmed that most fauna groups have very low to low site relevance. Common birds, insects, lizards, rodents or occasional snakes may occur due to agriculture, roads and semi-urban surroundings.

The action plan does not require wildlife monitoring in the scientific sense. It requires simple observation and no-harm response.

Fauna Group	Site Relevance	Action Required
Common birds	Low / occasional	Avoid unnecessary nest disturbance where observed
Rodents	Possible if housekeeping weak	Maintain waste and pest control
Lizards / reptiles	Occasional	No-harm response and reporting
Snakes	Possible but not significant concern	No handling by untrained persons, call support if required
Amphibians	Low seasonal relevance	Review drainage and stagnation
Pollinators / insects	Low	Maintain suitable flowering plantation where feasible
Mammals	Mostly regional relevance only	Record unusual sighting if any

12.12 Wildlife No-Harm Procedure

A simple no-harm approach shall be communicated to workers, security and contractors.

If any snake, reptile, bird, animal or injured fauna is observed:

Do not kill or harm the animal.

Do not handle snakes or unknown fauna without training.

Inform security and EHS.

Isolate the area if required.

Allow safe movement away where possible.

Call local rescue / competent support where required.

Record the observation.

Review if repeated sightings occur.

This approach is adequate for the very low risk site condition.

12.13 Drainage and Water Stagnation Action Plan

No natural wetland habitat was identified within the site. However, drainage and water stagnation areas can create nuisance conditions if not maintained.

[Insert Photo 12.2: Drainage / Stormwater Area]

Action	Description	Responsibility	Frequency	Evidence
Drain inspection	Inspect drains for blockage, waste and stagnation	Maintenance / EHS	Annual	Drain inspection record
Monsoon review	Review water stagnation during or after monsoon	Maintenance	Annual, where practical	Photo / inspection record
Waste prevention	Prevent waste entering drains	Housekeeping / Admin	Routine	Housekeeping record

Weed removal	Remove unwanted vegetation from drain side if required	Maintenance / Garden contractor	As required	Maintenance record
Corrective action	Act if repeated stagnation is observed	Maintenance / EHS	As required	Corrective action record

12.14 Waste and Pest-Attraction Action Plan

Waste management is a basic but important biodiversity control. Poor waste handling can attract rodents, dogs, flies, crows and other scavengers.

[Insert Photo 12.3: Waste Storage / Housekeeping Area]

Action	Description	Responsibility	Evidence
Maintain waste segregation	Ensure waste is stored properly	Admin / Housekeeping	Waste records
Avoid open food waste	Control canteen and food waste	Canteen / Housekeeping	Inspection record
Routine cleaning	Maintain clean open and storage areas	Housekeeping	Housekeeping checklist
Pest observation	Report rodent / pest increase if any	Housekeeping / Admin	Pest control record
Annual review	Review waste / pest-attraction as biodiversity KPI	EHS / Admin	KPI sheet

12.15 Stakeholder and Community Action Plan

Stakeholder consultation did not identify material biodiversity concerns. However, future concerns should be recorded and reviewed.

Stakeholder	Possible Concern	Action
Workers	Snake / reptile, birds, waste, greenbelt	Record and respond through EHS
Security	Wildlife sighting, roadkill, boundary movement	Maintain observation register
Gardeners	Plant health, invasive weeds, pollinators	Record during annual review
Maintenance	Drainage, water stagnation	Include in drain review
Housekeeping	Rodents, dogs, waste, flies	Maintain housekeeping control
Farmers	Dust, drainage, crop concern	Record and review if raised
Residents	Tree, water, local environment concern	Record and review if raised
Transporters	Roadkill or animal crossing	Record if observed

12.16 Biodiversity Awareness Action Plan

Annual awareness is adequate for GLS. The training should be short, practical and understandable.

Suggested awareness topics:

Why biodiversity is important.

GLS biodiversity risk is very low but controls are required.

Importance of greenbelt.

No intentional harm to birds, reptiles and animals.

What to do if snake or wildlife is seen.

Avoiding damage to trees and plants.

Importance of housekeeping and waste control.

Invasive weed observation.

Reporting process.

Role of each department.

Awareness Group	Frequency	Responsibility	Evidence
Workers	Annual	EHS / HR	Attendance record
Security	Annual / as needed	EHS / Security supervisor	Toolbox record
Gardeners	Annual / during review	Admin / EHS	Briefing record
Housekeeping / canteen	Annual	Admin / EHS	Briefing record
Contractors	During induction / annual	HR / EHS	Induction record

12.17 BAP Responsibility Matrix

Function	Main BAP Responsibility
Top Management	Approve the BAP and review annual biodiversity status
EHS	Maintain BAP, KPI sheet, risk register and annual review
Admin	Greenbelt, plantation, housekeeping and garden contractor coordination
Maintenance	Drainage and water stagnation review
Security	Wildlife / reptile observation and reporting
Housekeeping	Waste control and pest-attraction prevention
Garden Contractor	Plant health, plantation maintenance and weed observation
HR	Awareness / toolbox coordination
Workers / Contractors	Follow no-harm instruction and report concerns

Management Review Team	Review annual biodiversity performance
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12.18 BAP Implementation Schedule

Sr. No.	Action	Year 1	Annual Thereafter	Evidence
1	Approve biodiversity report and BAP	Yes	Review	Approved report
2	Conduct greenbelt review	Yes	Yes	Greenbelt inspection
3	Review plant health	Yes	Yes	Plant health record
4	Review invasive weeds	Yes	Yes	Weed inspection
5	Review drainage / stagnation	Yes	Yes	Drain inspection
6	Review waste / pest-attraction	Yes	Yes	Housekeeping record
7	Conduct biodiversity awareness	Yes	Yes	Training record
8	Maintain wildlife observation register	As required	As required	Observation register
9	Review stakeholder concern	Yes	Yes	Concern register / review note
10	Review KPIs and BAP status	Yes	Yes	KPI sheet and review minutes

12.19 BAP Success Criteria

The Biodiversity Action Plan shall be considered effective if the following conditions are maintained:

Greenbelt is maintained.

No major plant health deterioration is observed.

No major uncontrolled invasive weed spread is observed.

No significant drainage stagnation issue remains open.

No major waste / pest-attraction issue remains open.

No intentional harm to wildlife is reported.

Wildlife observations, if any, are recorded.

No material stakeholder biodiversity concern remains unresolved.

Annual biodiversity awareness is conducted.

Annual biodiversity KPI review is completed.

Overall biodiversity risk remains very low / controlled.

12.20 BAP Review and Update

The BAP shall be reviewed annually. It shall also be updated if:

New biodiversity risk is identified.

Significant site expansion occurs.

New land area is acquired.

Major plantation change occurs.

Protected species is observed or injured.

Community concern is received.

Drainage or water issue becomes significant.

New ASI / GRI requirement affects the site.

Management decides to enhance greenbelt or plantation programme.

12.21 BAP Conclusion

The Biodiversity Action Plan for GLS Aluminium Industries Pvt. Ltd. is proportionate to the very low biodiversity risk profile of the site. It focuses on practical actions that can be implemented by site teams without requiring complex ecological programmes.

The BAP confirms that no biodiversity offset, compensation, major restoration or routine expert monitoring is required. The site shall maintain annual monitoring, greenbelt management, invasive weed watch, drainage review, waste and pest control, no-harm wildlife awareness, stakeholder concern recording and management review.

CHAPTER 13

Monitoring, KPI and Review Mechanism

13.1 Introduction

Monitoring and review are essential to ensure that biodiversity controls remain effective over time. For GLS Aluminium Industries Pvt. Ltd., the monitoring mechanism has been designed as a simple annual system because the site has been assessed as very low biodiversity risk.

The monitoring system is not designed as a complex scientific biodiversity monitoring programme. It is designed as a practical site-level management system suitable for ASI audit readiness, GRI disclosure support and internal sustainability review. The system focuses on evidence that can be realistically maintained by GLS site teams.

The key monitoring areas are greenbelt maintenance, native / locally suitable plantation, plant survival, plant health, invasive weed control, wildlife observation, wildlife no-harm approach, drainage and water stagnation, waste and pest-attraction control, awareness and annual review.

13.2 Monitoring Principle

The monitoring system is based on the following principles:

Monitoring shall be proportionate to risk.

Annual monitoring is adequate for the current site condition.

Monitoring shall focus on site-relevant biodiversity aspects.

Monitoring shall be evidence-based.

Monitoring shall avoid false claims of high biodiversity value.

Monitoring shall be integrated with EHS, admin, maintenance and housekeeping systems.

Monitoring shall support annual management review.

Monitoring shall be updated if future risk changes.

13.3 Monitoring Frequency

The normal monitoring frequency shall be annual. More frequent monitoring is not required unless a specific issue is observed.

Monitoring Type	Frequency	Reason
Greenbelt review	Annual	Site is very low risk
Plant health review	Annual	Adequate for plantation maintenance
Invasive weed review	Annual	No major invasive spread identified
Drainage / stagnation review	Annual, preferably monsoon-linked	Maintains drainage control
Waste / pest review	Annual	Routine housekeeping controls already exist

Wildlife observation	As observed / annual summary	No significant wildlife issue identified
Stakeholder concern review	Annual / complaint-based	No material concern reported
Awareness	Annual	Adequate for no-harm behaviour
Management review	Annual	Supports governance and audit evidence

13.4 KPI Rating System

A simplified Green / Yellow rating system shall be used. Red rating is not used in routine biodiversity KPI reporting because the site is very low risk. Any serious biodiversity incident, if it occurs, shall be escalated separately through the company's incident, corrective action and management review process.

Status	Meaning	Action
Green	Control maintained / no concern identified	Continue existing control
Yellow	Planned action, improvement opportunity or observation requiring follow-up	Review and close through action plan

13.5 Core Biodiversity KPIs

The following ten KPIs form the core biodiversity monitoring system for GLS.

Sr. No.	KPI	Objective	Target / Expected Condition	Frequency	Responsibility	Evidence	Status
1	Greenbelt Maintenance	Maintain existing greenbelt and plantation	Greenbelt maintained without major deterioration	Annual	Admin / EHS	Greenbelt inspection record, photos	Green
2	Native / Locally Suitable Plantation	Improve plantation quality through suitable species	Native / locally suitable species preferred in new plantation	Annual / during plantation	Admin / Garden contractor	Plantation record	Yellow
3	Plantation Survival	Review survival of new plantation where applicable	Minimum 80% survival for new plantation, where plantation is carried out	Annual	Admin / Garden contractor	Survival record	Yellow

4	Tree / Plant Health	Maintain healthy plantation	Weak / dead plants identified and action planned	Annual	Admin / Garden contractor	Plant health record	Green
5	Invasive Weed Control	Prevent invasive weed spread	No major uncontrolled invasive weed spread	Annual	Admin / EHS	Weed inspection record	Green
6	Wildlife Observation	Record wildlife / reptile sightings if any	Sightings recorded and reviewed if any occur	As observed / annual	Security / EHS	Wildlife observation register	Yellow
7	Zero Intentional Harm to Wildlife	Prevent harm to birds, reptiles and animals	No intentional harm incident reported	Annual	EHS / Security / HR	Incident / awareness record	Green
8	Drainage and Water Stagnation	Prevent stagnation and nuisance conditions	Drains reviewed; no major unresolved stagnation issue	Annual	Maintenance / EHS	Drain inspection record	Yellow
9	Waste and Pest-Attraction Control	Prevent pest and scavenger attraction	No major open waste / pest-attraction concern	Annual	Admin / Housekeeping	Housekeeping / pest review	Green
10	Biodiversity Awareness and Review	Maintain awareness and management review	Annual awareness / review completed	Annual	EHS / HR / Management	Training and review record	Yellow

13.6 KPI Definitions

Each KPI shall be clearly understood by the responsible department.

13.6.1 KPI 1 – Greenbelt Maintenance

This KPI measures whether the existing greenbelt and plantation areas are maintained in acceptable condition. The aim is to ensure that plantation, boundary vegetation and open green areas continue to provide dust buffering, shade and visual improvement.

Evidence may include inspection checklist, photographs and garden maintenance records.

13.6.2 KPI 2 – Native / Locally Suitable Plantation

This KPI measures whether future plantation prefers locally suitable species. The objective is not to replace all existing plantation immediately, but to ensure that new plantation choices improve biodiversity value over time.

Recommended species may include Neem, Khejri, Shisham, Karanj, Siris, Kachnar, Papri and other locally suitable species depending on site conditions.

13.6.3 KPI 3 – Plantation Survival

This KPI applies where new plantation is carried out. The target is minimum 80 percent survival of new plantation after the defined review period. If no new plantation is carried out in the year, the KPI may be marked as not applicable with explanation.

13.6.4 KPI 4 – Tree / Plant Health

This KPI measures whether weak, dry, dead or stressed plants are identified. The purpose is to maintain plantation quality through observation and timely replacement where required.

13.6.5 KPI 5 – Invasive Weed Control

This KPI checks whether invasive weeds are spreading in greenbelt, open areas, boundary areas or drain sides. Watch-list species include Parthenium, Lantana, Ipomoea, Prosopis juliflora and other problematic weeds.

13.6.6 KPI 6 – Wildlife Observation

This KPI records sightings of wildlife, reptiles, snakes, birds or unusual fauna if any are observed. Since no significant wildlife issue has been identified, the KPI is observation-based. No sighting may also be recorded as “No significant sighting reported.”

13.6.7 KPI 7 – Zero Intentional Harm to Wildlife

This KPI confirms that no intentional harm to wildlife, reptiles, snakes or birds has been reported. It supports ethical and legal behaviour and aligns with good biodiversity management practice.

13.6.8 KPI 8 – Drainage and Water Stagnation

This KPI reviews whether drains and water stagnation points are maintained. The purpose is to avoid nuisance conditions, mosquito breeding, weed growth and possible minor biodiversity concerns around drain areas.

13.6.9 KPI 9 – Waste and Pest-Attraction Control

This KPI reviews whether housekeeping and waste controls are effective in preventing pest attraction. It is relevant because poor waste management can attract rodents, stray dogs, crows, flies and other scavengers.

13.6.10 KPI 10 – Biodiversity Awareness and Review

This KPI confirms whether biodiversity awareness or toolbox talk has been conducted and whether annual biodiversity review has been completed. It ensures that biodiversity management remains active and documented.

13.7 KPI Monitoring Sheet Format

Sr. No.	KPI	Target	Current Year Observation	Status	Action Required	Responsibility	Target Date	Closure Evidence
1	Greenbelt Maintenance	Greenbelt maintained	Greenbelt / plantation areas were reviewed and found maintained. No major deterioration of greenbelt was observed during the assessment period.	Green	Continue annual greenbelt inspection and maintain photographic evidence.	Admin / EHS	Annual review – April 2027	Greenbelt inspection record, site photographs and annual review note
2	Native / Locally Suitable Plantation	Suitable species preferred	Existing plantation is being maintained. For future plantation, native / locally suitable species such as Neem,	Green	Continue to prefer native / locally suitable species in future plantation activities.	Admin	During future plantation / Annual review	Plantation register, species selection record and greenbelt photos

			Karanj, Siris, Kachnar, Shisham and other suitable species shall be preferred.					
3	Plantation Survival	80% survival where applicable	No major plantation failure was reported. Existing plants were generally observed as maintained. Survival review shall be recorded for any new plantation carried out.	Green	Continue plant survival monitoring wherever new plantation is undertaken.	Garden Contractor / Admin	Annual review – April 2027	Plantation survival record, plant health review and replacement record, if any
4	Tree / Plant Health	Weak / dead plants identified	General plant health was observed as acceptable. No significant tree mortality or major plant health issue was identified during the	Green	Continue annual plant health review and replace weak / dead plants where required.	Admin / Garden Contractor	Annual review – April 2027	Plant health inspection record and photo evidence

			assessment.					
5	Invasive Weed Control	No major uncontrolled spread	No major uncontrolled invasive weed spread was identified in the greenbelt, open area or drainage-side area during the assessment.	Green	Continue annual invasive weed inspection, especially for Parthenium, Lantana, Prosopis and Ipomoea.	Admin / EHS	Annual review – April 2027	Invasive weed inspection record and site photographs
6	Wildlife Observation	Sightings recorded if any	No significant wildlife movement, protected fauna habitat, repeated snake issue or wildlife conflict was reported during consultation and site review.	Green	Maintain wildlife observation register. Record future sightings, if any.	Security / EHS	Continuous / Annual review	Wildlife observation register marked "No significant sighting reported"
7	Zero Intentional Harm	No intentional harm incident	No intentional harm to birds, reptiles, snakes, animals or other fauna	Green	Continue no-harm wildlife awareness for workers, security and	EHS / HR	Annual awareness – April 2027	Awareness record, incident record showing no intentional harm

			was reported during the assessment period.		contractors.			
8	Drainage / Stagnation	No major unresolved stagnation	No natural wetland habitat or major unresolved water stagnation issue was identified. Drainage areas shall continue to be reviewed annually.	Green	Continue annual drainage and water stagnation review, preferably before / during monsoon.	Maintenance / EHS	Before monsoon / Annual review – April 2027	Drainage inspection record and drainage photographs
9	Waste / Pest Attraction	No major open waste concern	No major open waste, rodent, scavenger or pest-attraction concern was reported during the site review and stakeholder consultation.	Green	Continue housekeeping, waste control and pest-attraction review.	Housekeeping / Admin	Annual review – April 2027	Housekeeping checklist, pest-control record and waste-area photographs
10	Awareness and Review	Annual awareness / review	Biodiversity assessment,	Green	Conduct annual biodiversity	EHS / HR / Management	Annual review – April 2027	Training attendance record,

		completed	stakeholder consultation and management-level review requirements have been established. Awareness shall be continued annually.		awareness / toolbox talk and include biodiversity KPI status in management review.			toolbox talk record and management review note
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13.8 Monitoring Records Required

The following records shall be maintained for biodiversity monitoring:

Greenbelt inspection record.

Plant health record.

Plantation register.

Plantation survival record where applicable.

Invasive weed inspection record.

Drainage inspection record.

Housekeeping / pest-attraction review.

Wildlife observation register, if any sighting occurs.

Biodiversity awareness record.

Stakeholder concern register, if any concern is received.

Annual biodiversity KPI sheet.

Annual management review minutes.

Photo register.

[Insert Photo 13.1: Annual Greenbelt Monitoring Photograph]

[Insert Photo 13.2: Drainage Review Photograph]

[Insert Photo 13.3: Waste / Housekeeping Review Photograph]

13.9 Monitoring Responsibility Matrix

Function	Monitoring Responsibility
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EHS	Overall biodiversity KPI coordination, risk register update and annual review
Admin	Greenbelt, plantation, housekeeping and garden contractor coordination
Garden Contractor	Plant health, weed observation and plantation maintenance
Maintenance	Drainage and water stagnation review
Security	Wildlife / reptile observation and reporting
Housekeeping	Waste and pest-attraction control
HR	Awareness and training record
Top Management	Review biodiversity performance annually
Workers / Contractors	Report biodiversity observations or concerns

13.10 Review Mechanism

The biodiversity review shall be conducted annually. The review may be included in the EHS / sustainability management review.

The annual review shall consider:

Status of all ten biodiversity KPIs.

Greenbelt condition.

Plant health and survival.

Native / suitable plantation status.

Invasive weed observation.

Drainage and water stagnation status.

Waste and pest-attraction status.

Wildlife / reptile observations, if any.

Stakeholder concerns, if any.

Awareness and training completion.

Corrective actions required.

Status of previous action closure.

Need for updating Biodiversity Action Plan.

13.11 Corrective Action Mechanism

Corrective action shall be initiated when a KPI is marked Yellow or when a concern is observed.

Examples of corrective action include:

Replacing dead plants.

Removing invasive weeds.

Cleaning blocked drains.

Improving waste storage.

Conducting awareness for security or workers.

Recording and reviewing wildlife sighting.

Responding to stakeholder concern.

Updating the BAP if needed.

Corrective actions should be assigned to responsible persons with target dates and closure evidence.

13.12 Escalation Mechanism

Although routine monitoring uses Green / Yellow status only, serious issues shall be escalated separately. Examples include:

Protected species injury or death.

Repeated snake / wildlife incidents.

Significant tree removal.

Major invasive weed spread.

Community complaint related to biodiversity.

Drainage contamination or water pollution concern.

Major land-use change.

New protected-area or ESZ requirement affecting the site.

Such issues shall be reported to management and may require revision of the biodiversity risk assessment.

13.13 Annual Biodiversity Review Format

Review Item	Observation	Status	Action Required	Responsibility	Target Date
Greenbelt condition		Green / Yellow		Admin	
Plant health		Green / Yellow		Admin	
New plantation		Green / Yellow		Admin	
Invasive weeds		Green / Yellow		Admin / EHS	
Drainage / stagnation		Green / Yellow		Maintenance	
Waste / pest-attraction		Green / Yellow		Housekeeping	
Wildlife observations		Green / Yellow		Security / EHS	
Stakeholder concern		Green / Yellow		EHS / HR	
Awareness completed		Green / Yellow		EHS / HR	

BAP update required		Yes / No		EHS	
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13.14 Evidence Quality Requirements

For audit readiness, evidence should be clear, dated and traceable.

Good evidence includes:

Dated photographs.

Signed inspection records.

Attendance records.

Corrective action closure notes.

Plantation records.

Maintenance records.

Housekeeping records.

Management review minutes.

Stakeholder concern register.

Wildlife observation entries, if any.

Evidence should avoid unsupported claims. For example, the company should not claim presence of rare species unless actually observed and verified. Similarly, greenbelt should be described as greenbelt / plantation, not as natural forest habitat.

13.15 KPI Dashboard for Management Review

A simple annual biodiversity dashboard may be used.

KPI Area	Status	Management Comment
Greenbelt	Green / Yellow	
Native plantation	Green / Yellow	
Plant survival	Green / Yellow	
Plant health	Green / Yellow	
Invasive weed control	Green / Yellow	
Wildlife observation	Green / Yellow	
Zero harm to wildlife	Green / Yellow	
Drainage / stagnation	Green / Yellow	
Waste / pest control	Green / Yellow	
Awareness / review	Green / Yellow	
Overall biodiversity status	Very Low / Controlled	

13.16 Review of Very Low Risk Classification

The very low biodiversity risk classification shall be reviewed annually. It may continue if the following conditions remain true:

No protected habitat is identified within the site.

No wetland or forest habitat is identified within the site.

No significant flora or fauna issue is observed.

No major invasive species spread occurs.

No material stakeholder biodiversity concern is received.

No significant wildlife incident occurs.

Greenbelt is maintained.

Drainage and waste controls remain effective.

Annual KPI review is completed.

If these conditions change, the risk classification shall be reviewed.

13.17 Linkage with ASI and GRI Requirements

The monitoring and KPI mechanism supports ASI and GRI readiness by providing evidence that GLS has:

Identified biodiversity risks and impacts.

Reviewed protected areas and ecological sensitivity.

Assessed ecosystem services.

Consulted relevant stakeholders.

Applied mitigation hierarchy.

Prepared a Biodiversity Action Plan.

Established monitoring indicators.

Assigned responsibilities.

Maintained review evidence.

Adopted a proportionate approach suitable for very low risk.

13.18 Monitoring and KPI Conclusion

The monitoring and KPI mechanism for GLS Aluminium Industries Pvt. Ltd. is simple, practical and proportionate to the very low biodiversity risk profile of the site.

Annual monitoring is adequate. The ten core KPIs provide sufficient evidence for ASI, GRI and internal management review. The focus shall remain on greenbelt maintenance, suitable plantation, plant health, invasive weed control, wildlife no-harm, drainage, waste control, awareness and annual review.

The monitoring system confirms that biodiversity management at GLS is controlled, evidence-based and suitable for audit readiness.

CHAPTER 14

GRI 304 / GRI 101 Disclosure Readiness

14.1 Introduction

This chapter evaluates the readiness of GLS Aluminium Industries Pvt. Ltd. to support biodiversity-related disclosure under GRI 304: Biodiversity and the emerging GRI 101 biodiversity approach. The purpose is not to create a public sustainability disclosure by itself, but to ensure that the company has sufficient internal evidence, assessment logic and management controls to support future disclosure, customer review, ASI audit and ESG reporting.

The biodiversity assessment for GLS has been prepared in a proportionate manner. The site has been assessed as a very low biodiversity risk industrial facility located in a developed, road-influenced, agriculture-surrounded and semi-urban landscape near Rewari city. No significant biodiversity feature, protected habitat, forest habitat, wetland habitat, rare flora patch, wildlife corridor or high biodiversity ecosystem was identified within or immediately surrounding the site during the limited physical survey.

The GRI readiness approach therefore focuses on transparent and accurate disclosure. The report avoids overstating biodiversity value and avoids claiming the presence of species or habitats unless supported by evidence. The key disclosure position is that GLS has assessed its site, reviewed protected-area context, carried out limited physical survey, completed stakeholder consultation, reviewed flora and fauna relevance, assessed ecosystem services, prepared a risk and impact assessment, applied the mitigation hierarchy and established a Biodiversity Action Plan with annual KPIs.

BIODIVERSITY IMPACT ASSESSMENT

FIG · 06

Standards & Framework Alignment

The references against which this assessment and its disclosures have been prepared

ASI ✓ Performance Standard V3 Aluminium Stewardship Initiative — biodiversity & ecosystem provisions.	GRI 101 ✓ Biodiversity 2024 Latest GRI topic standard on biodiversity impacts & dependencies.	GRI 304 ✓ Biodiversity 2016 Disclosures on habitats, protected areas and IUCN-listed species.
IFC PS6 ✓ Biodiversity & Living Resources Mitigation hierarchy, critical habitat & No Net Loss criteria.	GBF ✓ Kunming-Montreal Framework Global Biodiversity Framework goals & 2030 action targets.	TNFD ✓ Nature-related Disclosures LEAP approach to nature risk, dependencies & impacts.

Cross-referenced throughout the report · also informed by UN Guiding Principles, OECD & CBD

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14.2 Purpose of GRI Biodiversity Readiness

The purpose of GRI biodiversity readiness is to ensure that GLS can demonstrate the following:

The site location and land area have been identified.

The position of the site in relation to protected areas and high biodiversity value areas has been screened.

The company has reviewed actual and potential biodiversity impacts.

The company has considered ecosystem services and stakeholder concerns.

The company has identified relevant flora, fauna, pollinators and invasive species at a site-relevance level.

The company has applied the mitigation hierarchy.

The company has established actions, monitoring and review mechanisms.

The company has evidence to support its biodiversity statements.

The company avoids unsupported claims or exaggerated disclosure.

14.3 Disclosure Approach Adopted

The disclosure approach adopted for GLS is based on four principles.

First, the disclosure shall be evidence-based. Statements should be supported by maps, land-area data, limited physical survey, consultation records, rating analysis and management review.

Second, the disclosure shall be proportionate. Since the site is very low risk, the report does not require complex landscape-level biodiversity accounting or multi-season species monitoring.

Third, the disclosure shall be transparent. Limitations are clearly stated. The assessment is a limited physical survey and site-level biodiversity risk assessment, not a long-term scientific ecological research project.

Fourth, the disclosure shall be cautious. Regional species are not treated as site-confirmed unless observed or supported by evidence. Greenbelt is described as greenbelt / plantation / open area, not as natural forest habitat.

14.4 GRI 304-1 Disclosure Readiness

GRI 304-1 relates to operational sites owned, leased, managed in or adjacent to protected areas and areas of high biodiversity value outside protected areas.

For GLS, the key disclosure elements are available.

GRI 304-1 Disclosure Element	GLS Information / Readiness Status	Evidence Available	Disclosure Readiness
Geographic location	GLS site located at Rewari, Haryana; approximate coordinates 28.3195° N, 76.6296° E	Site coordinate map, land-use map	Ready
Site size	Total land area 153,249 sq. m / 15.3249 ha / approx. 37.87 acres	Land area data	Ready
Built-up area	Approx. 14% / 21,455 sq. m	Site land-use calculation	Ready
Greenbelt / open area	Approx. 86% / 131,794 sq. m	Site land-use calculation	Ready
Position in relation to protected area	Site not located inside National Park, Wildlife	Protected-area maps and screening chapter	Ready

	Sanctuary or Ramsar wetland based on screening		
Position in relation to high biodiversity area outside protected area	No high biodiversity habitat identified within or immediately surrounding site	Limited physical survey and land-use screening	Ready
Type of operation	Aluminium manufacturing / aluminium product processing	Company operational information	Ready
Biodiversity value characterised by attribute	Developed, road-influenced, agriculture-surrounded, semi-urban / industrial landscape	Site maps and survey observations	Ready
Biodiversity value characterised by protected status	No protected habitat within site; regional protected areas located away	Protected-area screening	Ready
Disclosure limitation	Limited physical survey; not long-term ecological research	Methodology and limitation chapter	Ready

14.5 GRI 304-1 Suggested Disclosure Statement

GLS Aluminium Industries Pvt. Ltd. operates an industrial site in Rewari, Haryana. The approximate site coordinates considered for biodiversity screening are 28.3195° N and 76.6296° E. The total site land area is approximately 153,249 square metres, of which approximately 14 percent is built-up / operational area and approximately 86 percent is greenbelt / open area.

The site is located in a developed, road-influenced, agriculture-surrounded and semi-urban / industrial landscape near Rewari city. Available map-based screening, government-source review and limited physical site survey indicate that the site is not located within a National Park, Wildlife Sanctuary, Ramsar wetland, forest habitat, natural wetland habitat or high biodiversity area. Regional protected / natural areas considered during screening are located away from the site and no direct operation-linked impact pathway has been identified.

The limited physical survey did not identify any significant biodiversity feature, protected species habitat, forest habitat, wetland habitat, wildlife corridor or high biodiversity ecosystem within or immediately surrounding the GLS site. The site is therefore assessed as very low biodiversity risk. Biodiversity management focuses on greenbelt maintenance, native / locally suitable plantation preference, invasive weed watch, drainage review, waste and pest-attraction control, wildlife no-harm awareness and annual KPI review.

14.6 GRI 304-2 Disclosure Readiness

GRI 304-2 relates to significant impacts of activities, products and services on biodiversity.

For GLS, no significant biodiversity impact has been identified. The site-level impacts are very low to low and are manageable through routine controls.

GRI 304-2 Disclosure Element	GLS Assessment Finding	Evidence	Disclosure Readiness
Nature of significant direct and indirect impacts	No significant direct or indirect biodiversity impact identified	Risk register, impact matrix	Ready
Construction or use of manufacturing plants	Existing industrial site in developed landscape; no sensitive habitat identified	Site context, land-use chapter	Ready
Pollution impacts on biodiversity	No significant biodiversity pollution pathway identified; routine EHS controls required	Drainage, waste and housekeeping review	Ready
Introduction of invasive species	No major uncontrolled invasive spread identified; watch-list maintained	Invasive flora register	Ready
Habitat conversion	No natural habitat conversion identified during assessment	Limited survey and maps	Ready
Changes in ecological processes	No significant ecological process impact identified	Ecosystem services assessment	Ready
Species affected	No site-confirmed protected or significant species impact identified	Flora/fauna rating and consultation	Ready
Area impacted	No significant biodiversity impact area identified	Impact matrix	Ready
Duration of impact	No material biodiversity impact identified	Risk and impact assessment	Ready
Reversibility	Site-level low impacts are reversible through routine maintenance	Mitigation hierarchy	Ready
Mitigation measures	Greenbelt, weed control, drainage, waste, no-harm awareness and annual review	BAP and KPI system	Ready

14.7 GRI 304-2 Suggested Disclosure Statement

The biodiversity risk and impact assessment for GLS Aluminium Industries Pvt. Ltd. did not identify significant direct or indirect impacts on biodiversity. The site is located in a developed and road-influenced industrial / agricultural landscape and does not contain identified forest habitat, wetland habitat, protected habitat, wildlife corridor or high biodiversity ecosystem.

Potential site-level biodiversity interactions are limited to greenbelt maintenance, open-area management, drainage / water stagnation review, waste and pest-attraction control, occasional common fauna or reptile observation, and invasive weed watch. These are assessed as very low to low impact areas and are managed through annual monitoring and routine operational controls.

No biodiversity offset, compensation, complex ecological restoration or routine expert-level monitoring is required under the current site condition.

14.8 GRI 304-3 Disclosure Readiness

GRI 304-3 relates to habitats protected or restored.

For GLS, no natural habitat restoration has been required because no significant degraded natural habitat or high biodiversity habitat has been identified within the site. However, the company maintains greenbelt and open areas as positive site-level environmental features.

GRI 304-3 Disclosure Element	GLS Status	Disclosure Interpretation
Habitats protected	No natural protected habitat within site	Not applicable
Habitats restored	No ecological restoration required	Not applicable
Greenbelt maintained	Yes, greenbelt / open area present	Can be disclosed as site-level environmental management, not habitat restoration
Area of greenbelt / open area	Approx. 131,794 sq. m	Positive environmental buffer
Native / suitable plantation	Planned / preferred for future plantation	Improvement action
Invasive weed control	Annual watch-list review	Preventive control
External assurance / verification	May be reviewed during ASI / customer audit	Evidence-based readiness

14.9 GRI 304-3 Suggested Disclosure Statement

No natural habitat requiring formal ecological restoration has been identified within the GLS site. The company maintains greenbelt and open areas of approximately 131,794 square metres as a positive site-level environmental management feature. These areas support dust buffering, shade, visual improvement, common bird / insect presence and open-area management.

The company will continue annual greenbelt review, plant health monitoring, invasive weed inspection and preference for native / locally suitable species in future plantation. These activities are reported as site-level biodiversity management actions and not as formal habitat restoration.

14.10 GRI 304-4 Disclosure Readiness

GRI 304-4 relates to IUCN Red List species and national conservation list species with habitats in areas affected by operations.

For GLS, the assessment did not identify any site-confirmed habitat for threatened or protected species affected by operations. Some species listed in regional fauna references may have legal or conservation relevance at district or landscape level, but they are not treated as site-confirmed habitats within GLS.

Disclosure Point	GLS Position	Evidence / Caution
Site-confirmed threatened species habitat	Not identified	Limited physical survey
Protected species habitat within site	Not identified	Site survey and stakeholder consultation
Wildlife corridor	Not identified	Map and consultation screening
Regional species references	Considered only for context	Not to be claimed as site-confirmed
Common species	Common birds, insects, rodents, lizards may occur	Observation-based only
Reporting approach	Conservative and evidence-based	Avoid false claims

14.11 GRI 304-4 Suggested Disclosure Statement

The biodiversity assessment did not identify site-confirmed habitat for IUCN Red List threatened species or nationally protected species affected by GLS operations. The site is located in a developed, road-influenced and agriculture-surrounded landscape. Regional species such as antelope, carnivores, reptiles or birds may occur in the broader Rewari / Haryana landscape, but they are not treated as site-confirmed biodiversity features for GLS unless directly observed and verified.

The company maintains a no-harm wildlife approach and shall record any significant wildlife or reptile sighting if it occurs.

14.12 GRI 101 Biodiversity Readiness

GRI 101: Biodiversity places greater emphasis on biodiversity location, impacts, dependencies, ecosystem services, mitigation hierarchy, restoration, transformation strategy, traceability and site-level management. GLS can demonstrate readiness for the relevant site-level components, while also clearly defining limitations.

GRI 101 Readiness Area	GLS Status	Readiness Comment
Site location and ecological context	Available	Site coordinates and land-use context documented
Biodiversity impacts	Assessed	No significant impact identified
Biodiversity dependencies	Assessed	Limited ecosystem service dependency
Ecosystem services	Assessed	Very low ecosystem service risk
Affected stakeholders	Consulted	No material biodiversity concern raised
Mitigation hierarchy	Applied	Avoid, minimise, improve; no offset required
Biodiversity action plan	Prepared	Practical annual BAP established
Monitoring indicators	Prepared	Ten annual KPIs established
Invasive species	Assessed	Watch-list maintained
Protected areas	Screened	Site not inside protected / high biodiversity area

Traceability of evidence	Available	Maps, survey, ratings, consultation, KPI records
Limitations	Disclosed	Limited physical survey, not long-term ecological research

14.13 GRI 101 Interpretation for GLS

The GRI 101 readiness interpretation for GLS is that the company has sufficient evidence for a site-level biodiversity management and disclosure position. The company has assessed biodiversity location context, identified that the site is very low risk, assessed ecosystem services, consulted stakeholders, applied the mitigation hierarchy and established monitoring.

The company should not present itself as having high biodiversity dependence or high biodiversity impact. The correct disclosure position is that GLS has low dependency, very low impact and a practical management system.

14.14 Biodiversity Disclosure Boundary

The biodiversity disclosure boundary for this report is the GLS operational site at Rewari and its immediate practical area of influence.

The boundary includes:

Plant boundary.

Built-up and operational areas.

Greenbelt and open areas.

Drainage and stormwater areas.

Waste and housekeeping interface.

Nearby agriculture and road-influenced surroundings.

Stakeholders consulted during the assessment.

Regional protected / natural area screening context.

The boundary does not include upstream mining, raw material extraction, global supply chain biodiversity footprinting, transport-route biodiversity beyond local observations or long-term ecological population studies.

14.15 Disclosure Quality Controls

To maintain disclosure quality, GLS should apply the following controls:

Do not claim species as site-confirmed unless observed or recorded.

Do not describe greenbelt as natural forest.

Do not describe drainage channels as wetlands unless ecologically verified.

Do not overstate protected-area linkage.

Do not claim ecological restoration unless restoration activity is actually done.

Do not treat photo-reference species as confirmed site species.

Clearly state that rating is site-relevance rating, not conservation-status rating.

Maintain dated evidence for each disclosure statement.

Review biodiversity KPIs annually.

Update disclosure if future site condition changes.

14.16 Recommended Public Disclosure Wording

The following wording may be used in a sustainability report or customer response:

GLS Aluminium Industries Pvt. Ltd. has completed a biodiversity risk, impact and ecosystem services assessment for its Rewari site. The assessment considered site location, land use, protected-area screening, available GIS maps, limited physical survey, stakeholder consultation, flora and fauna relevance rating, invasive species review and ecosystem services. The site is located in a developed, road-influenced, agriculture-surrounded and semi-urban / industrial landscape. No forest habitat, wetland habitat, protected habitat, wildlife corridor or high biodiversity ecosystem was identified within or immediately surrounding the site.

The overall biodiversity risk is assessed as very low. The company maintains greenbelt and open areas and has established annual biodiversity monitoring covering greenbelt condition, native / locally suitable plantation, plant health, invasive weeds, wildlife observation, no-harm approach, drainage, waste control and awareness. No significant biodiversity impact or material stakeholder biodiversity concern has been identified.

14.17 GRI Readiness Gap Review

Sr. No.	Potential Gap	Current Status	Required Action
1	Annual biodiversity KPI record not yet completed for future years	Monitoring framework prepared	Complete annually
2	Photo evidence needs systematic filing	Photo placeholders identified	Maintain annual photo register
3	Plantation register may need species detail	Plantation guidance prepared	Maintain species-wise plantation record
4	Wildlife observation register may be blank if no sightings	Acceptable for very low risk	Maintain as “no sighting reported” if applicable
5	Stakeholder concern record may have no entries	Acceptable if no concern raised	Record annually or complaint-based
6	Greenbelt map may need final formatting	Maps available	Insert final map in Word report
7	Management review evidence required	Framework prepared	Include biodiversity in annual review

14.18 Chapter Conclusion

The GRI 304 / GRI 101 readiness review confirms that GLS Aluminium Industries Pvt. Ltd. has sufficient evidence and management structure to support biodiversity disclosure for a very low risk industrial site.

The company has documented its location, land area, protected-area screening, limited physical survey findings, flora and fauna rating, ecosystem services assessment, stakeholder consultation, risk and impact assessment, mitigation hierarchy, Biodiversity Action Plan and KPI monitoring system.

The recommended disclosure position is clear: GLS has very low biodiversity risk, no significant biodiversity impact identified, no protected habitat within the site, and annual monitoring is adequate.



CHAPTER 15

ASI 8.1 and 8.2 Compliance Mapping

15.1 Introduction

This chapter maps the biodiversity assessment and management approach of GLS Aluminium Industries Pvt. Ltd. with the biodiversity-related expectations of the Aluminium Stewardship Initiative Performance Standard, particularly Clause 8.1 and Clause 8.2.

The objective is to demonstrate that the company has taken a systematic approach to biodiversity risk identification, impact assessment, mitigation, monitoring and review. The mapping is designed for audit readiness and should be read along with the detailed chapters and annexures of this report.

The GLS site has been assessed as a very low biodiversity risk industrial site. This conclusion is based on site context, available maps, protected-area screening, limited physical survey, stakeholder consultation, flora and fauna rating, ecosystem services assessment and risk / impact evaluation.

15.2 ASI Biodiversity Requirement Context

ASI biodiversity requirements expect entities to understand and manage biodiversity risks and impacts associated with their operations. The key expectation is not that every site must have high biodiversity actions, but that every site should assess its biodiversity context, identify potential impacts, apply appropriate controls and maintain evidence.

For GLS, the appropriate response is a proportionate biodiversity management system. The site does not require complex habitat restoration or biodiversity offset because no significant residual biodiversity impact has been identified.

15.3 ASI Clause 8.1 – Biodiversity Assessment Context

ASI Clause 8.1 generally requires the entity to assess the risk and materiality of impacts on biodiversity from its activities and areas of influence. For GLS, this has been addressed through the complete biodiversity risk and impact assessment.

The assessment includes:

Site location and land-use context.

Protected area / ESZ / Ramsar screening.

Ecological sensitivity screening.

Land area and greenbelt calculation.

Limited physical survey.

Stakeholder consultation.

Flora and fauna photo-reference rating.

Invasive / exotic species screening.

Ecosystem services assessment.

Risk register.

Impact matrix.

Mitigation hierarchy evaluation.

Biodiversity Action Plan.

Annual KPI monitoring framework.

15.4 ASI Clause 8.1 Compliance Mapping

ASI 8.1 Expectation	GLS Action / Evidence	Compliance Interpretation
Identify biodiversity context of operational site	Site location, coordinates, land-use and surrounding context documented	Addressed
Assess whether site is located in or near high biodiversity value areas	Protected area / ESZ / Ramsar / ecological sensitivity screening completed	Addressed
Identify biodiversity receptors	Flora, fauna, pollinators, insects, reptiles, mammals, amphibians and invasive species reviewed	Addressed
Consider area of influence	Plant boundary, greenbelt, open area, drainage, waste, roads, nearby agriculture and regional protected context considered	Addressed
Assess impacts on biodiversity	Biodiversity risk register and impact matrix prepared	Addressed
Consider ecosystem services	Ecosystem services assessment completed	Addressed
Consult relevant stakeholders where appropriate	Stakeholder consultation completed on 06.04.2026 and 07.04.2026	Addressed
Determine materiality of biodiversity impacts	No material biodiversity impact identified; very low risk conclusion documented	Addressed
Maintain evidence for findings	Maps, survey notes, rating analysis, consultation register and annexures maintained	Addressed
Review if site condition changes	Escalation criteria and annual review mechanism established	Addressed

15.5 ASI 8.1 Evidence Matrix

Sr. No.	Evidence Item	Location in Report / Record	Status
1	Site location and coordinates	Chapter 2, Chapter 4, Annexure VI	Available
2	Land area calculation	Chapter 4, Annexure VI	Available
3	Protected area screening	Chapter 5, Annexure V	Available

4	Ecosystem services assessment	Chapter 6, Annexure VII	Available
5	Flora baseline and rating	Chapter 7, Flora rating records	Available
6	Fauna baseline and rating	Chapter 7, Survey report / fauna register	Available
7	Invasive / exotic flora review	Chapter 7, invasive flora records	Available
8	Stakeholder consultation	Chapter 9, Annexure VIII	Available
9	Risk register	Chapter 8, Annexure IX	Available
10	Impact matrix	Chapter 8, Annexure X	Available
11	Mitigation hierarchy	Chapter 10, Annexure XI	Available
12	Biodiversity Action Plan	Chapter 12, Annexure XII	Available
13	KPI monitoring sheet	Chapter 13, Annexure XIII	Available
14	Management review mechanism	Chapter 13	Established

15.6 ASI Clause 8.1 Compliance Conclusion

GLS meets the intent of ASI Clause 8.1 through a structured and proportionate biodiversity assessment. The assessment demonstrates that biodiversity risks and impacts have been identified, evaluated and documented.

The site has been assessed as very low biodiversity risk. No significant biodiversity feature, protected habitat, wetland, forest, wildlife corridor or high biodiversity ecosystem was identified within or immediately surrounding the site. Annual monitoring and routine management controls are adequate.

15.7 ASI Clause 8.2 – Biodiversity Management Context

ASI Clause 8.2 generally requires the entity to implement a Biodiversity Action Plan or management approach where material biodiversity risks or impacts are identified. Even where risk is low, it is good practice to maintain a practical management plan and monitoring system.

For GLS, no material biodiversity impact has been identified. However, a simple Biodiversity Action Plan has been prepared to maintain good practice, audit readiness and continual improvement.

The BAP focuses on:

Greenbelt maintenance.

Native / locally suitable plantation.

Plant health review.

Invasive weed control.

Drainage and water stagnation review.

Waste and pest-attraction control.

Wildlife no-harm approach.

Wildlife observation recording, if any.

Stakeholder concern recording.

Annual biodiversity awareness.

Annual KPI and management review.

15.8 ASI Clause 8.2 Compliance Mapping

ASI 8.2 Expectation	GLS Action / Evidence	Compliance Interpretation
Develop biodiversity management approach based on assessment	Biodiversity Management Framework prepared	Addressed
Apply mitigation hierarchy	Avoid, minimise, improve and monitor approach documented	Addressed
Prepare Biodiversity Action Plan where relevant	Practical BAP prepared despite very low risk	Addressed
Include actions to manage identified risks	Greenbelt, weed, drainage, waste, no-harm and awareness actions included	Addressed
Define responsibilities	EHS, Admin, Maintenance, Security, HR and Management roles defined	Addressed
Define monitoring indicators	Ten annual biodiversity KPIs prepared	Addressed
Review performance	Annual KPI and management review mechanism established	Addressed
Maintain records	Inspection, awareness, observation, consultation and review records defined	Addressed
Escalate if risk changes	Escalation criteria defined	Addressed
Avoid unnecessary offset where no significant residual impact exists	Offset not applicable and justification documented	Addressed

15.9 ASI 8.2 BAP Evidence Matrix

Sr. No.	BAP Requirement	GLS Evidence / Control	Status
1	Management approach	Biodiversity Management Framework	Established
2	Action plan	Biodiversity Action Plan	Established
3	Monitoring indicators	Ten annual KPIs	Established

4	Responsibility	Responsibility matrix	Established
5	Greenbelt control	Annual greenbelt review	Established
6	Plantation control	Native / suitable species preference	Established
7	Invasive species control	Annual watch-list inspection	Established
8	Drainage control	Annual drain / stagnation review	Established
9	Waste control	Housekeeping and pest-attraction review	Established
10	Wildlife protection	No-harm instruction and sighting register	Established
11	Stakeholder concern	Concern recording mechanism	Established
12	Training / awareness	Annual biodiversity awareness	Established
13	Review	Annual management review	Established
14	Escalation	Risk-change triggers defined	Established

15.10 ASI Mitigation Hierarchy Alignment

Mitigation Hierarchy Element	GLS Application	ASI Alignment
Avoid	No operation in protected habitat; avoid unnecessary tree cutting; avoid intentional wildlife harm	Aligned
Minimise	Control weeds, drainage, waste, dust, pest attraction and poor plantation choices	Aligned
Restore / Improve	Replace weak plants, improve plantation quality, strengthen greenbelt where feasible	Aligned
Offset	Not applicable because no significant residual biodiversity impact identified	Aligned
Monitor	Annual KPI review and management review	Aligned

15.11 ASI Management System Integration

The biodiversity controls are integrated with existing site functions rather than being treated as a separate isolated system.

Site Function	Biodiversity Integration
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EHS	Risk register, KPI review, awareness and annual review
Admin	Greenbelt, housekeeping, contractor coordination and plantation
Maintenance	Drainage and stagnation review
Security	Wildlife sighting / no-harm observation
HR	Awareness and toolbox talk records
Housekeeping	Waste and pest-attraction prevention
Garden contractor	Plant health and weed observation
Top Management	Annual review and resource support

This integration is suitable for ASI implementation because it ensures that biodiversity is embedded in normal site management.

15.12 ASI Audit Evidence Readiness

For ASI audit, the following evidence should be arranged in a structured file.

Evidence Category	Evidence Required
Report evidence	Biodiversity Risk, Impact and Management Assessment Report
Map evidence	Site coordinate map, land-use map, protected-area map, Rewari district map
Survey evidence	Limited physical survey note and photographs
Flora / fauna evidence	Photo-reference rating registers
Consultation evidence	Stakeholder consultation register, names, dates and findings
Risk evidence	Biodiversity risk register
Impact evidence	Biodiversity impact matrix
Mitigation evidence	Mitigation hierarchy evaluation
BAP evidence	Biodiversity Action Plan
KPI evidence	Annual biodiversity KPI sheet
Greenbelt evidence	Greenbelt inspection and photos
Drainage evidence	Drain inspection record
Waste evidence	Housekeeping / pest-attraction review
Awareness evidence	Toolbox talk / attendance record
Review evidence	Management review note

15.13 ASI Audit-Ready Summary Statement

The following statement may be used during ASI audit discussion:

GLS Aluminium Industries Pvt. Ltd. has completed a site-level biodiversity risk, impact and management assessment for its Rewari facility. The assessment considered the site's location, land use, protected-area context, available GIS maps, limited physical survey, flora and fauna relevance rating, invasive species, ecosystem services and stakeholder consultation. The assessment concluded that the site is a very low

biodiversity risk industrial site. No forest habitat, wetland habitat, protected habitat, wildlife corridor or high biodiversity ecosystem was identified within or immediately surrounding the site.

The company has established a practical Biodiversity Management Framework, Biodiversity Action Plan and annual KPI monitoring system. The controls include greenbelt maintenance, native / suitable plantation preference, invasive weed watch, drainage review, waste and pest-attraction control, wildlife no-harm approach, stakeholder concern recording and annual review. No biodiversity offset or complex ecological restoration is required under the current site condition.

15.14 ASI 8.1 and 8.2 Gap Review

Sr. No.	Potential Gap	Current Control	Required Action
1	Annual KPI evidence not yet available for future year	KPI format prepared	Complete annually
2	Management review record to be generated	Review mechanism defined	Include in annual review
3	Awareness record to be maintained	Awareness plan prepared	Conduct annual toolbox talk
4	Greenbelt photo evidence to be filed annually	Photo placeholders included	Maintain photo register
5	Wildlife register may have no entries	Register proposed	Maintain “no sighting” note if applicable
6	Plantation species record may need improvement	Species guidance prepared	Maintain plantation register
7	Drainage review evidence to be maintained	Annual drain review defined	Complete inspection
8	Invasive weed inspection record to be maintained	Watch-list established	Complete annual inspection

15.15 ASI 8.1 and 8.2 Compliance Conclusion

The biodiversity assessment and management system developed for GLS Aluminium Industries Pvt. Ltd. is aligned with the intent of ASI Performance Standard Clause 8.1 and Clause 8.2.

The company has assessed biodiversity risks and impacts, reviewed protected-area and ecological sensitivity context, considered ecosystem services, completed stakeholder consultation, prepared risk and impact registers, applied the mitigation hierarchy, developed a Biodiversity Action Plan and established annual KPI monitoring.

The assessment conclusion is very low biodiversity risk. Annual monitoring and routine management controls are adequate. The site does not require biodiversity offset, habitat compensation, complex ecological restoration or routine expert monitoring under the current site condition.

CHAPTER 16

Data Sources, Assumptions and Limitations

16.1 Introduction

Every biodiversity assessment must clearly explain the data sources used, assumptions made and limitations of the study. This is especially important for an industrial biodiversity assessment because the purpose is to make a fair, evidence-based and defensible conclusion without overstating the ecological sensitivity of the site.

For GLS Aluminium Industries Pvt. Ltd., the assessment has been prepared using available official and site-level information, available maps, limited physical survey, stakeholder consultation, flora and fauna photo-reference rating, land-use interpretation and professional judgement. The assessment has been prepared for ASI Performance Standard biodiversity readiness, GRI biodiversity disclosure support, customer sustainability review and internal environmental management.

The report is not presented as a long-term ecological research project or a multi-season scientific biodiversity inventory. It is a site-level biodiversity risk, impact and management assessment. The approach is appropriate because the GLS site has been assessed as a very low biodiversity risk industrial site located in a developed, road-influenced, agriculture-surrounded and semi-urban / industrial landscape near Rewari city.

This chapter explains the data basis, the assumptions followed during interpretation and the limitations that should be understood while using this report.

16.2 Data Source Categories

The assessment used multiple data source categories to ensure a balanced and practical understanding of biodiversity risk.

The main data source categories were:

Company-provided site information.

Available GLS location and land-use maps.

Available regional protected / natural area distance maps.

Available composite biodiversity and environmental assessment maps.

Rewari district and surrounding land-use context.

Government / official protected-area and biodiversity screening references.

Limited physical site survey.

Stakeholder consultation records.

Flora photo-reference survey.

Fauna photo-reference survey.

Invasive and exotic flora reference plates.

Ecosystem services screening.

Professional biodiversity risk and impact interpretation.

ASI Performance Standard and GRI biodiversity disclosure requirements.

These data sources together provide sufficient evidence for a very low-risk industrial biodiversity assessment.

16.3 Company-Provided Information

The company-provided information included site location, general operational context, land area, built-up area percentage, greenbelt / open area percentage and site-level environmental context.

The key company-provided data used in the assessment are:

Sr. No.	Data Item	Information Used in Report
1	Company name	GLS Aluminium Industries Pvt. Ltd.
2	Site location	Rewari, Haryana
3	Approximate coordinates	28.3195° N, 76.6296° E
4	Total land area	153,249 sq. m
5	Total land area in hectares	15.3249 ha
6	Total land area in acres	Approx. 37.87 acres
7	Built-up area	Approx. 14%
8	Built-up area in sq. m	Approx. 21,455 sq. m
9	Greenbelt / open area	Approx. 86%
10	Greenbelt / open area in sq. m	Approx. 131,794 sq. m
11	Operational context	Industrial aluminium manufacturing / aluminium product processing site
12	Monitoring approach	Annual biodiversity monitoring considered adequate

16.4 Map and GIS Evidence Used

The assessment relied on available GLS maps and visual map references already prepared for the biodiversity study.

The following map evidence was used:

Map Reference	Description	Use in Report
GLS Regional Protected / Natural Area Distance Map	Shows GLS in relation to Sultanpur National Park, Asola Bhatti Wildlife Sanctuary and Aravalli forest patches	Protected-area and ecological sensitivity screening
GLS Site Coordinate and Surrounding Land Use Map	Shows GLS coordinate reference and surrounding roads, villages and industrial / agricultural context	Site location and land-use interpretation
Biodiversity and Environmental Assessment Composite Map	Includes site location, buffer zone, protected-area distance, land-use classification and biodiversity impact map	Integrated biodiversity screening

Rewari District Map	Shows district-level context, settlements, roads and area setting	Regional location context
Site / district visual map attachment	Supports general location and surrounding land-use understanding	Supporting map evidence

The map evidence indicates that GLS is located in a developed, road-influenced and agriculture-surrounded landscape. The maps also indicate that regional protected / natural areas are located away from the GLS site. No map evidence indicates that the GLS site is located within a National Park, Wildlife Sanctuary, Ramsar wetland, forest habitat, wetland habitat or high biodiversity area.

[Insert Figure 16.1: Source Map Index Used for Assessment]

16.5 Limited Physical Survey Evidence

A limited physical survey was conducted to verify site-level biodiversity conditions. The purpose of the limited survey was to identify whether any obvious significant biodiversity feature exists within or immediately surrounding the site.

The limited physical survey considered:

Greenbelt and plantation areas.

Open areas.

Boundary areas.

Drainage / water stagnation points.

Waste and housekeeping interface.

Common bird / insect / reptile observation potential.

Invasive weed observation.

Nearby agriculture and road-influenced surroundings.

The limited physical survey did not identify:

Forest habitat.

Wetland habitat.

Natural high biodiversity habitat.

Protected habitat.

Rare flora patch.

Significant wildlife habitat.

Wildlife corridor.

Major invasive weed spread.

Material drainage-linked biodiversity issue.

Significant ecosystem service dependency.

This physical survey evidence supports the conclusion that the GLS site is very low biodiversity risk.

16.6 Stakeholder Consultation Evidence

Stakeholder consultation was conducted to validate the limited physical survey and map-based findings. Consultation was completed with internal and local stakeholders on 06.04.2026 and 07.04.2026.

Stakeholders consulted included:

Security personnel.

Gardeners.

Housekeeping / canteen interface personnel.

Maintenance personnel.

Production, maintenance, utility, store and admin workers.

Nearby farmers.

Nearby resident / village representative.

Transport representative.

Panchayat / local community representative.

The consultation did not identify any material biodiversity concern. Stakeholders did not report significant wildlife movement, protected fauna concern, repeated snake incident, roadkill issue, major invasive weed spread, crop-related biodiversity concern, drainage issue, pest / scavenger concern or community biodiversity grievance.

The consultation evidence strengthens the report conclusion because it confirms that the low-risk finding is not based only on desk review. It was cross-checked through people who regularly observe the site and surrounding area.

16.7 Flora Data Sources

The flora baseline was prepared using flora photo-reference plates and site-relevance interpretation. The flora survey included native / local species references such as Neem, Peepal, Bargad, Pilkhan, Gular, Kikar, Ronj / Reru, Khair, Khejri, Jaal / Peelu, Dhok, Dhak / Palash, Ber, Imli, Shisham, Arjun, Jamun, Amaltas, Amla, Karanj, Siris, Kachnar, Bel, Hingot and Papri.

The flora analysis showed:

25 native / local flora references reviewed.

13 species rated as very low site relevance.

11 species rated as low / possible / suitable regional relevance.

1 species, Neem, rated as more relevant / suitable for GLS plantation context.

The flora rating was used as a site-relevance rating. It was not used as a conservation-status assessment.

16.8 Invasive and Exotic Flora Data Sources

Invasive and exotic flora reference plates were used to develop a watch-list. Species considered included *Prosopis juliflora*, *Leucaena leucocephala*, *Eucalyptus* spp., *Conocarpus* spp., ornamental palms, *Lantana camara*, *Parthenium hysterophorus*, *Ipomoea carnea*, *Cassia siamea*, Silver Oak and Poplar.

The assessment found that exotic and invasive flora should be treated as watch-list items. No major uncontrolled invasive flora spread was identified at GLS during the assessment.

The practical control is annual invasive weed review and avoidance of promoting invasive or low biodiversity value species as biodiversity enhancement plantation.

16.9 Fauna Data Sources

The fauna baseline was prepared using the fauna photo-reference survey and stakeholder consultation. The fauna survey covered birds, mammals, reptiles, amphibians, butterflies, pollinators and insects.

The fauna survey showed that most species / groups have very low to low site relevance. Common urban, roadside and agricultural species may occur occasionally. More sensitive or landscape-level species were treated as regional references only and not as site-confirmed biodiversity features.

The fauna rating was also used as a site-relevance rating. It was not used as a conservation-status rating.

16.10 Ecosystem Services Data Sources

The ecosystem services assessment was prepared using site land-use, limited physical survey, stakeholder consultation, greenbelt context and surrounding agricultural / road-influenced landscape.

The assessment considered:

Water availability.

Greenbelt dust buffering.

Microclimate and shade.

Stormwater and drainage.

Agricultural interface.

Pollination.

Pest regulation.

Open-area soil function.

Cultural / aesthetic value of greenbelt.

Biodiversity awareness and no-harm approach.

No significant ecosystem service dependency or material community-level biodiversity concern was identified.

16.11 Standards and Guidance References

The report was prepared with reference to the intent of the following frameworks:

ASI Performance Standard V3.1 biodiversity requirements.

ASI biodiversity guidance principles.

GRI 304 biodiversity disclosure requirements.

GRI 101 biodiversity readiness direction.

Biodiversity mitigation hierarchy principles.

General industrial EHS and sustainability management practice.

Government / official protected-area screening context.

The report does not claim statutory clearance status. It is a management-system and sustainability assessment report.

16.12 Key Assumptions

The following assumptions were used while preparing the report.

Sr. No.	Assumption	Reason
1	The site coordinates used are acceptable for screening-level assessment	Approximate coordinate map was available and used throughout the report
2	The land-area data provided by GLS is correct	Calculations are based on company-provided land-area information
3	Built-up and greenbelt / open-area percentages are accepted as provided	Used for biodiversity land-use interpretation
4	Available maps are sufficient for protected-area screening	The site is clearly shown outside protected / natural areas in available map evidence
5	Limited physical survey is adequate for the current risk context	Site is developed, road-influenced and very low biodiversity risk
6	Stakeholder responses are reliable for practical site observation	Stakeholders regularly observe the site and nearby area
7	Flora and fauna ratings represent site relevance	The ratings are not treated as conservation status
8	Regional species are not site-confirmed unless observed or supported by evidence	Avoids false biodiversity claims
9	Annual monitoring is adequate	No significant biodiversity risk or material concern was identified
10	Biodiversity expert opinion is not required for routine monitoring	Very low risk site with no significant habitat identified

16.13 Interpretation Assumptions

The report has followed conservative interpretation assumptions.

A greenbelt is treated as greenbelt / plantation, not as natural forest.

Drainage points are treated as industrial drainage features, not natural wetlands.

Common species are considered possible only where suitable site context exists.

Regional wildlife species are not treated as site-confirmed.

Species photo references are used for awareness and rating, not as proof of site presence.

Invasive species are treated as watch-list unless actually observed as spreading.

No high biodiversity value is claimed unless supported by direct evidence.

Protected-area distance screening is treated as sufficient for low-risk conclusion because all mapped protected / natural areas are located away from the site.

Stakeholder consultation findings are used as practical evidence, not as scientific species survey.

16.14 Main Limitations of the Assessment

The assessment has certain limitations. These limitations do not invalidate the very low risk conclusion, but they should be clearly disclosed for transparency.

The physical survey was limited and not a multi-season ecological study.

No night survey was conducted for nocturnal fauna.

No detailed taxonomic survey was carried out for all plants, insects or birds.

No long-term camera trap or wildlife movement study was conducted.

No hydrological modelling was carried out.

No formal soil biodiversity analysis was conducted.

No detailed aquatic biodiversity survey was conducted because no natural wetland was identified within the site.

No full value-chain biodiversity footprint assessment was conducted.

No upstream mining biodiversity assessment was included.

No landscape-level wildlife corridor modelling was conducted.

No claim is made that all species in Rewari district have been assessed.

These limitations are acceptable because the site has been assessed as very low biodiversity risk and no significant habitat was identified.

16.15 Why Limitations Do Not Change the Conclusion

The limitations do not change the overall conclusion because the core evidence is consistent.

The site is located in a developed and road-influenced landscape.

The surrounding area is agriculture, semi-urban and industrial in nature.

Available maps do not show the site inside protected or high biodiversity areas.

Limited physical survey did not identify significant habitats.

Stakeholders did not report material biodiversity concerns.

Flora and fauna rating showed mostly very low to low site relevance.

No wetland, forest, protected habitat or wildlife corridor was identified.

No material ecosystem service dependency was identified.

The management actions required are simple and annual in nature.

Therefore, the very low biodiversity risk classification remains reasonable and defensible.

16.16 Data Quality Review

The data quality for this assessment is considered adequate for an industrial biodiversity risk assessment.

Data Category	Data Quality	Comment
Site land area	Good	Clear land-area figures available
Built-up / open-area calculation	Good	Percentage-based calculation used
GIS / map evidence	Adequate	Available maps sufficient for screening
Protected-area screening	Adequate	Regional protected areas considered
Limited physical survey	Adequate for low-risk site	No significant features observed
Stakeholder consultation	Good	Multiple stakeholder groups consulted
Flora rating	Adequate	Used for site relevance and plantation guidance
Fauna rating	Adequate	Used for site relevance and awareness
Ecosystem services assessment	Adequate	Based on site context and consultation
Risk and impact assessment	Good	Consistent with evidence and site condition
Monitoring framework	Good	Practical annual KPI system developed

16.17 Evidence Traceability

The report maintains traceability between evidence and conclusion.

Evidence	Linked Report Area	Conclusion Supported
Site maps	Chapters 4 and 5	Developed / road-influenced site context
Land-area calculation	Chapter 4	Greenbelt / open area and built-up area interpretation
Protected-area distance maps	Chapter 5	Protected / natural areas are away from site
Limited physical survey	Chapters 4, 5, 6, 7 and 8	No significant biodiversity feature identified
Flora rating	Chapter 7	Flora site relevance is very low to low
Fauna rating	Chapter 7	Fauna site relevance is very low to low

Stakeholder consultation	Chapter 9	No material biodiversity concern reported
Ecosystem services register	Chapter 6	No high ecosystem service dependency
Risk register	Chapter 8	Overall risk is very low
Impact matrix	Chapter 8	No significant impact identified
Mitigation hierarchy	Chapter 10	Offset not required
BAP	Chapter 12	Practical annual action plan
KPIs	Chapter 13	Annual monitoring adequate

16.18 Conditions Requiring Reassessment

The biodiversity assessment should be reviewed if any important change occurs. Reassessment may be required in the following cases:

- Major site expansion.
- New land acquisition.
- Change in land use.
- Large-scale tree cutting.
- New construction in greenbelt or open area.
- New discharge or drainage pathway.
- Protected species sighting or injury.
- Repeated snake or wildlife incidents.
- Major invasive species spread.
- Community biodiversity complaint.
- New protected area / ESZ notification affecting the site.
- New ASI / customer requirement.
- Significant change in surrounding land-use pattern.

16.19 Data Management and Record Retention

Biodiversity records should be maintained in a structured manner. The following records should be retained:

- Final biodiversity assessment report.
- All annexures.
- Site maps and GIS evidence.
- Limited physical survey notes.
- Flora and fauna rating records.
- Stakeholder consultation register.
- Greenbelt inspection record.

Plantation and plant health record.

Invasive weed inspection record.

Drainage review record.

Housekeeping / pest-attraction review.

Wildlife observation register, if any.

Biodiversity awareness record.

Annual KPI review sheet.

Management review minutes.

Corrective action records, if any.

Records should be kept in a manner that allows easy retrieval during ASI audit, customer review or internal sustainability review.

16.20 Chapter Conclusion

The data sources, assumptions and limitations of this assessment are clear and transparent. The assessment is based on adequate evidence for a very low biodiversity risk industrial site.

The report does not overstate biodiversity value or make unsupported ecological claims. It recognises the limitations of a limited physical survey, while also explaining why those limitations do not affect the very low risk conclusion.

The assessment is suitable for ASI biodiversity compliance readiness, GRI biodiversity disclosure support, customer sustainability review and annual internal management review.

CHAPTER 17

Conclusion and Management Commitment

17.1 Introduction

This chapter presents the final conclusion of the Biodiversity Risk, Impact and Management Assessment for GLS Aluminium Industries Pvt. Ltd., Rewari, Haryana. It also provides the management commitment required to maintain biodiversity controls and annual review.

The report has been prepared in a systematic, evidence-based and practical manner. It considered site location, land use, available maps, protected-area screening, ecosystem services, flora and fauna baseline, invasive and exotic species, stakeholder consultation, risk and impact assessment, mitigation hierarchy, Biodiversity Action Plan, KPI monitoring and disclosure readiness.

The assessment concludes that the GLS site is a very low biodiversity risk industrial site. This conclusion is consistent across all chapters and evidence sources.

17.2 Final Assessment Conclusion

The final conclusion of the assessment is:

GLS Aluminium Industries Pvt. Ltd. is located in a developed, road-influenced, agriculture-surrounded and semi-urban / industrial landscape near Rewari city.

The site is not located within a National Park, Wildlife Sanctuary, Ramsar wetland, forest habitat, natural wetland habitat or high biodiversity area based on available screening.

No significant biodiversity feature was identified within or immediately surrounding the site during the limited physical survey.

No protected habitat, forest habitat, wetland habitat, rare flora patch, wildlife corridor or high biodiversity ecosystem was identified within the operational site.

The greenbelt and open area provide positive site-level environmental value, but they are not classified as natural high biodiversity habitat.

Flora rating indicates mostly very low to low site relevance, with Neem identified as highly suitable for industrial plantation context.

Fauna rating indicates mostly very low to low site relevance, with common urban, agricultural and roadside species possible.

Invasive and exotic flora are treated as watch-list items only, and no major uncontrolled invasive spread was identified.

Ecosystem services risk is very low, with relevant services limited mainly to greenbelt, dust buffering, microclimate, drainage, waste control, pest prevention and site aesthetics.

Stakeholder consultation did not identify any material biodiversity concern.

No significant biodiversity impact has been identified.

No biodiversity offset, compensation, complex ecological restoration or routine expert monitoring is required.

Annual monitoring and basic management controls are adequate.

17.3 Overall Biodiversity Risk Status

The overall biodiversity risk status for GLS Aluminium Industries Pvt. Ltd. is:

Very Low / Controlled

This classification is based on the following evidence:

Site and land-use context.

Protected-area / ESZ / Ramsar screening.

Limited physical survey.

Stakeholder consultation.

Flora and fauna rating.

Ecosystem services assessment.

Risk register.

Impact matrix.

Mitigation hierarchy.

Biodiversity Action Plan.

Annual KPI monitoring mechanism.

17.4 Main Biodiversity Receptors Identified

The assessment identified the following site-relevant biodiversity receptors:

Greenbelt and plantation.

Open areas.

Common birds.

Common insects and pollinators.

Possible occasional reptiles / lizards / snakes.

Rodents and pest fauna if housekeeping becomes weak.

Drainage and water stagnation areas.

Nearby agricultural interface.

Invasive weed watch-list species.

These receptors are low-risk and can be managed through routine annual controls.

17.5 Main Biodiversity Risks Identified

The main biodiversity risks identified are minor and site-level.

Sr. No.	Risk Area	Risk Level	Management Response
1	Greenbelt deterioration	Low	Annual greenbelt review

2	Poor plantation species selection	Low	Prefer native / locally suitable species
3	Invasive weed spread	Low	Annual weed inspection
4	Drainage stagnation	Low	Annual drain review
5	Waste and pest attraction	Low	Housekeeping and waste control
6	Occasional wildlife / reptile sighting	Low	No-harm approach and observation record
7	Stakeholder concern	Low	Concern recording and response
8	Awareness gap	Low	Annual biodiversity awareness

No high biodiversity risk has been identified.

17.6 Main Positive Findings

The assessment also identified positive findings.

The site has a large greenbelt / open area.

No significant biodiversity concern was identified during limited physical survey.

No material biodiversity concern was raised by stakeholders.

No protected habitat is located within the operational site.

No wetland or forest habitat was identified within the site.

No high ecosystem service dependency was identified.

A practical Biodiversity Action Plan has been developed.

A simple annual KPI monitoring system has been established.

Responsibilities have been defined.

The report is suitable for ASI and GRI readiness.

17.7 Mitigation Hierarchy Conclusion

The mitigation hierarchy has been applied as follows:

Avoidance is addressed by confirming that the site is not located in protected habitat and by maintaining no-harm wildlife instructions.

Minimisation is addressed through greenbelt maintenance, invasive weed control, drainage review, waste control and housekeeping.

Improvement is addressed through native / suitable plantation preference, plant health review and biodiversity awareness.

Offset is not applicable because no significant residual biodiversity impact has been identified.

Monitoring is addressed through ten annual biodiversity KPIs and management review.

This mitigation hierarchy conclusion is proportionate and technically appropriate for GLS.

17.8 Biodiversity Action Plan Conclusion

The Biodiversity Action Plan is practical and site-relevant. It focuses on:

Greenbelt maintenance.

Plant health review.

Native / locally suitable plantation.

Invasive weed watch.

Drainage and water stagnation review.

Waste and pest-attraction control.

Wildlife no-harm approach.

Wildlife observation record if any sighting occurs.

Stakeholder concern recording.

Annual biodiversity awareness.

Annual KPI review.

The BAP is adequate for the very low risk profile of GLS.

17.9 KPI and Monitoring Conclusion

The monitoring system includes ten annual KPIs. These are:

Greenbelt maintenance.

Native / locally suitable plantation.

Plantation survival.

Tree / plant health.

Invasive weed control.

Wildlife observation.

Zero intentional harm to wildlife.

Drainage and water stagnation.

Waste and pest-attraction control.

Biodiversity awareness and review.

The monitoring frequency is annual. Serious biodiversity incidents, if any occur, will be escalated separately. This approach is practical, auditable and suitable for GLS.

17.10 ASI Readiness Conclusion

The assessment supports ASI Performance Standard biodiversity readiness. GLS has demonstrated that it has:

Assessed biodiversity risk and impact.

Reviewed protected-area and ecological sensitivity context.

Considered ecosystem services.

Completed stakeholder consultation.

Prepared flora and fauna baseline.

Reviewed invasive / exotic species.

Applied the mitigation hierarchy.

Prepared a Biodiversity Action Plan.

Established annual KPIs.

Defined responsibilities.

Established review and escalation criteria.

The evidence supports the conclusion that GLS has a proportionate biodiversity management approach.

17.11 GRI Readiness Conclusion

The assessment also supports GRI biodiversity disclosure readiness. GLS has sufficient information for site-level biodiversity disclosure, including:

Geographic location.

Site land area.

Position in relation to protected areas.

Biodiversity value of the site context.

Impacts on biodiversity.

Management actions.

Monitoring approach.

Limitations.

The recommended disclosure position is that GLS is a very low biodiversity risk industrial site with no significant biodiversity impact identified and annual monitoring established.

17.12 Management Commitment

GLS Aluminium Industries Pvt. Ltd. recognises the importance of biodiversity and ecosystem services in responsible industrial operations. The company commits to maintaining a practical and proportionate biodiversity management approach suitable for its site context and risk profile.

The company commits to:

Maintain the greenbelt and open areas.

Prefer native / locally suitable species during future plantation.

Avoid promotion of invasive or unsuitable species as biodiversity enhancement.

Review plant health and plantation survival annually.

Monitor invasive weeds annually.

Maintain drainage and avoid water stagnation.

Maintain housekeeping and waste controls to prevent pest attraction.

Follow a no-harm approach for birds, reptiles, snakes and common fauna.

Record wildlife observations if any occur.

Record and respond to biodiversity-related stakeholder concerns if any are received.

Conduct annual biodiversity awareness or toolbox talk.

Review biodiversity KPIs annually.

Include biodiversity performance in management review.

Update the biodiversity assessment if site conditions or risks change.

17.13 Management Review Commitment

Management shall review biodiversity performance at least once annually. The review shall include:

Status of greenbelt.

Plantation and plant health status.

Invasive weed observation.

Drainage / stagnation review.

Waste and pest-attraction control.

Wildlife observations, if any.

Stakeholder concerns, if any.

Annual awareness status.

KPI status.

BAP action status.

Need for corrective action.

Need for assessment revision.

This review will ensure that the very low biodiversity risk status remains controlled.

17.14 Escalation Commitment

GLS shall escalate biodiversity issues if any material concern arises.

Escalation shall be required in the following cases:

Protected species sighting, injury or death.

Repeated snake / wildlife incidents.

Major tree cutting.

Significant invasive weed spread.

Major drainage or water contamination concern.

Community complaint related to biodiversity.

Major site expansion or land-use change.

New legal requirement or protected-area notification affecting the site.

If such a situation occurs, the biodiversity risk register, impact assessment and BAP shall be reviewed.

17.15 Final Professional Opinion

Based on the evidence reviewed, the site context, limited physical survey, stakeholder consultation, map screening, flora and fauna rating, ecosystem services assessment and risk / impact analysis, the biodiversity risk at GLS Aluminium Industries Pvt. Ltd., Rewari, Haryana is assessed as very low and controlled.

The site does not require complex ecological restoration, biodiversity offset, routine expert monitoring or high-frequency biodiversity monitoring. Annual monitoring and basic site-level controls are sufficient.

The report is suitable for ASI audit readiness, GRI biodiversity disclosure support, customer sustainability review and internal environmental management.

17.16 Final Report Conclusion

The Biodiversity Risk, Impact and Management Assessment confirms that GLS Aluminium Industries Pvt. Ltd. has taken a structured and responsible approach to biodiversity management.

The assessment has been completed in a realistic and evidence-based manner. It recognises the site's actual location and risk profile. It avoids exaggerated biodiversity claims and instead focuses on practical management controls.

The final conclusion is:

GLS Aluminium Industries Pvt. Ltd., Rewari, Haryana, is a very low biodiversity risk industrial site. No significant biodiversity feature, forest habitat, wetland habitat, protected habitat, wildlife corridor or high biodiversity ecosystem was identified within or immediately surrounding the site. No material biodiversity concern was raised through stakeholder consultation. Annual monitoring through greenbelt maintenance, plant health review, invasive weed control, drainage review, waste and pest-attraction control, no-harm wildlife awareness and management review is adequate.

Overall Status: Very Low / Controlled

Recommended Review Frequency: Annual

Biodiversity Expert Opinion for Routine Monitoring: Not Required

Offset / Compensation Requirement: Not Applicable

Management Action Required: Maintain annual BAP and KPI review

Sign-off

Prepared By

Dr. Vijay Sonawane/Pravin -GLS/

Lead Consultant – Biodiversity, ESG, ASI and Sustainability Due Diligence

Vaidehi Integrated Business Solutions/GLS

Reviewed By/

Name: _____

Designation: _____

Date: _____

Approved By

Name: _____

Designation: _____

Date: _____

Annexure Index

The following annexures form part of the supporting evidence pack for the Biodiversity Risk, Impact and Management Assessment Report of GLS Aluminium Industries Pvt. Ltd., Rewari, Haryana. The main report presents the assessment, analysis, interpretation, conclusions and management direction. Detailed registers, maps, survey records, rating sheets, consultation evidence and monitoring templates are maintained separately as annexures.

ANNEXURE VOLUME II

Annexure No.	Annexure Title	Purpose / Linkage with Main Report
Annexure I	Flora Inventory and Flora Rating Analysis	Supports Chapter 7 – Biodiversity Baseline and Chapter 12 – Biodiversity Action Plan
Annexure II	Fauna Inventory and Fauna Rating Analysis	Supports Chapter 7 – Biodiversity Baseline and Chapter 13 – Monitoring and KPI Mechanism
Annexure III	Butterfly, Pollinator and Insect Inventory	Supports pollinator and common insect baseline under Chapter 7
Annexure IV	Alien, Exotic and Invasive Species Register	Supports invasive weed watch-list, plantation control and Chapter 12 BAP actions
Annexure V	Protected Area / Eco-Sensitive Zone / Ramsar Screening	Supports Chapter 5 – Protected Area / ESZ / Ramsar / Ecological Sensitivity Screening
Annexure VI	Land Use and GIS Maps	Supports Chapter 4 – Site and Land Use Characteristics and Chapter 5 screening
Annexure VII	Ecosystem Services Register	Supports Chapter 6 – Ecosystem Services Assessment
Annexure VIII	Stakeholder Consultation Register	Supports Chapter 9 – Stakeholder Consultation
Annexure IX	Biodiversity Risk Register	Supports Chapter 8 – Biodiversity Risk and Impact Assessment

Annexure X	Biodiversity Impact Matrix	Supports Chapter 8 – Biodiversity Risk and Impact Assessment
Annexure XI	Mitigation Hierarchy Evaluation	Supports Chapter 10 – Mitigation Hierarchy Evaluation
Annexure XII	Biodiversity Action Plan	Supports Chapter 12 – Biodiversity Action Plan
Annexure XIII	Biodiversity KPI Monitoring Sheet	Supports Chapter 13 – Monitoring, KPI and Review Mechanism
Annexure XIV	GRI 304 / GRI 101 Disclosure Index	Supports Chapter 14 – GRI 304 / GRI 101 Disclosure Readiness
Annexure XV	ASI 8.1 and 8.2 Compliance Matrix	Supports Chapter 15 – ASI 8.1 and 8.2 Compliance Mapping
Annexure XVI	Data Sources, Assumptions and Limitations Evidence Note	Supports Chapter 16 – Data Sources, Assumptions and Limitations
Annexure XVII	Government / Official References Reviewed	Supports protected-area, Ramsar, ESZ and ecological sensitivity screening
Annexure XVIII	Photographic Evidence Register	Supports site survey, greenbelt, maps, stakeholder consultation and audit evidence

Chapter-Wise Annexure Linkage

Chapter	Main Report Topic	Supporting Annexures
Chapter 1	Introduction and Background	Annexure XVI, Annexure XVII
Chapter 2	Organisational and Operational Context	Annexure VI, Annexure XVIII
Chapter 3	Assessment Objectives and Scope	Annexure XVI
Chapter 4	Site and Land Use Characteristics	Annexure VI, Annexure XVIII
Chapter 5	Protected Area / ESZ / Ramsar / Ecological Sensitivity Screening	Annexure V, Annexure VI, Annexure XVII
Chapter 6	Ecosystem Services Assessment	Annexure VII, Annexure VIII
Chapter 7	Biodiversity Baseline – Flora, Fauna, Pollinators and Invasive Species	Annexure I, Annexure II, Annexure III, Annexure IV, Annexure XVIII

Chapter 8	Biodiversity Risk and Impact Assessment	Annexure IX, Annexure X
Chapter 9	Stakeholder Consultation	Annexure VIII, Annexure XVIII
Chapter 10	Mitigation Hierarchy Evaluation	Annexure XI
Chapter 11	Biodiversity Management Framework	Annexure IX, Annexure XI, Annexure XII, Annexure XIII
Chapter 12	Biodiversity Action Plan	Annexure XII, Annexure XIII
Chapter 13	Monitoring, KPI and Review Mechanism	Annexure XIII
Chapter 14	GRI 304 / GRI 101 Disclosure Readiness	Annexure XIV
Chapter 15	ASI 8.1 and 8.2 Compliance Mapping	Annexure XV
Chapter 16	Data Sources, Assumptions and Limitations	Annexure XVI, Annexure XVII
Chapter 17	Conclusion and Management Commitment	Annexure XII, Annexure XIII, Annexure XV

Annexure Use Statement

The annexures are intended to provide detailed evidence, working registers and traceability for the conclusions presented in the main report. The main report should be read as the primary biodiversity assessment document, while the annexures should be used for verification, audit review, internal implementation and annual monitoring.

The annexures include detailed registers, photo-reference records, map evidence, consultation records, risk and impact matrices, Biodiversity Action Plan, KPI monitoring sheet, disclosure index and compliance mapping. These annexures support the conclusion that GLS Aluminium Industries Pvt. Ltd. is a very low biodiversity risk industrial site and that annual monitoring is adequate.

Photograph and Map List

Figure / Photo No.	Description	Proposed Location
Photo 1	GLS site entrance / overview	Cover / Chapter 2
Figure 1	GLS site coordinate map	Chapter 2 / Chapter 4
Figure 2	Land-use and surrounding area map	Chapter 4
Figure 3	Protected area distance map	Chapter 5
Figure 4	Composite biodiversity assessment map	Chapter 5
Photo 2	Greenbelt / plantation area	Chapter 4 / Chapter 12
Photo 6	Flora / fauna survey reference plate	Chapter 7

GLS BIODIVERSITY IMPACT ASSESSMENT REPORT

Audit Evidence Readiness Checklist

Evidence Required	Available / To Be Maintained
Main biodiversity assessment report	Available
Annexure index and evidence pack	Available
Site maps and GIS maps	Available
Protected area screening	Available
Flora / fauna rating records	Available
Stakeholder consultation register	Available
Risk register	Available
Impact matrix	Available
Mitigation hierarchy	Available
Biodiversity Action Plan	Available
KPI monitoring sheet	To be updated annually
Greenbelt photos	To be maintained annually
Drainage / housekeeping review	To be maintained annually
Management review note	To be maintained annually

GLS BIODIVERSITY IMPACT ASSESSMENT REPORT

Annexure Index

The following annexures form part of Volume II - Annexure and Evidence Pack. The main report presents the assessment, interpretation and conclusion; the annexures provide detailed evidence, registers, maps, photo plates and monitoring formats.

Annexure No.	Annexure Title	Purpose / Linkage
I	Flora Inventory and Flora Rating Analysis	Supports Chapter 7 and Chapter 12
II	Fauna Inventory and Fauna Rating Analysis	Supports Chapter 7 and Chapter 13
III	Butterfly, Pollinator and Insect Inventory	Supports Chapter 7
IV	Alien, Exotic and Invasive Species Register	Supports Chapter 7 and Chapter 12
V	Protected Area / Eco-Sensitive Zone / Ramsar Screening	Supports Chapter 5
VI	Land Use and GIS Maps	Supports Chapter 4 and Chapter 5
VII	Ecosystem Services Register	Supports Chapter 6
VIII	Stakeholder Consultation Register	Supports Chapter 9
IX	Biodiversity Risk Register	Supports Chapter 8
X	Biodiversity Impact Matrix	Supports Chapter 8
XI	Mitigation Hierarchy Evaluation	Supports Chapter 10
XII	Biodiversity Action Plan	Supports Chapter 12
XIII	Biodiversity KPI Monitoring Sheet	Supports Chapter 13
XIV	GRI 304 / GRI 101 Disclosure Index	Supports Chapter 14
XV	ASI 8.1 and 8.2 Compliance Matrix	Supports Chapter 15
XVI	Data Sources, Assumptions and Limitations Evidence Note	Supports Chapter 16
XVII	Government / Official References Reviewed	Supports Chapter 5 and Chapter 16
XVIII	Photographic Evidence Register	Supports all evidence sections

Final Professional Opinion and Sign-off

Based on the available evidence, limited physical survey, site maps, stakeholder consultation, flora and fauna rating, ecosystem services review and professional assessment, the GLS Aluminium Industries Pvt. Ltd. site is classified as a very low biodiversity risk industrial site. Annual biodiversity monitoring and routine management controls are adequate. No biodiversity offset, compensation, complex ecological restoration or routine expert monitoring is required under the current site condition.

Sign-off

Prepared By	Reviewed By	Approved By
Dr. Vijay Sonawane/PRAVIN- GLS Lead Consultant - Biodiversity, ESG, ASI and Sustainability Due Diligence Date: _____	Name: _____ Designation: _____ Date: _____	Name: _____ Designation: _____ Date: _____
Signature: _____	Signature: _____	Signature: _____
Seal / Stamp, if applicable: _____	Seal / Stamp, if applicable: _____	Seal / Stamp, if applicable: _____

18 : Survey Evidences PDFs and photos



Survey Report_.pdf



Exotic_Flora_Photo_



Invasive_Concern_Fl



Flora survey .pdf

Reference_1_8 Surveyora_Photo_Reference

GLS near by farm









GLS PLANT PHOTOS



























GLS SURROUNDING COMMUNITY INTERACTION

