

***Annex I Summary of the Environmental Impact Assessment and
Appropriate Assessment processes and consultants' findings
August 2026***

1. INTRODUCTION

1.1 General Background

The proposed Material Recovery Facility (MRF) was assessed in line with the:

- Environmental Impact Assessment Regulations (S.L. 549.46), specifically the following criteria in Schedule I, Category II:
 - Section 1.0.2.1 (*Development with a site area of 2ha or more.*); and
 - Section 13.0.2.1 (*Any change to, or extension of, projects (even if the project is already authorised, executed or in the process of being executed), particularly projects covered by Category I or Category II, where the change or extension itself does not fall under Category I but may have significant adverse effects on the environment*).
- Flora, Fauna and Natural Habitats Protection Regulations (S.L. 549.44), specifically Regulation 19(1), given the location of the proposal vis-à-vis the following Natura 2000 sites:
 - MT0000007- Is-Salini designated as a terrestrial Special Area of Conservation via Government Notice 1379 of 2016;
 - MT0000008 - L-Għadira s-Safra u l-Iskoll tal-Għallis designated as a terrestrial Special Area of Conservation via Government Notice 1522 of 2019;
 - MT0000105 - Żona fil-Baħar bejn il-Ponta ta' San Dimitri (Għawdex) u Il Qaliet designated as a marine Special Area of Conservation of International Importance via Government Notice 682 of 2018;
 - MT0000107 - Żona fil-Baħar fil-Grigal, designated as a Special Area of Conservation via Government Notice No. 1311 of 2016; and
 - MT0000112 - Żona fil-Baħar ta' Madwar Għawdex designated as a marine Special Protected Area via Government Notice 1311 of 2016.

The EIA and AA reports were coordinated by AIS Environment.

1.2 Description of the site and proposed development

The development, proposed by Wasteserv Malta is for the construction of a Material Recovery Facility (MRF), within the ECOHIVE Complex in Magħtab, Naxxar. The proposal is for the processing of grey bag and recovery of different waste streams of materials. The project also includes ancillary office space, staff quarters and parking spaces. The total area of the site is approximately 21,373m², with 11,900m² to be occupied by the MRF facility, 400m² for welfare and 9,073m² for manoeuvring and access of vehicles.

The site lies on agricultural land at the edge of the ECOHIVE Complex, surrounded by existing and planned waste facilities. Agricultural land and Natura 2000 sites (refer to Section 1.1) also lie in close proximity to the site.

The project will consist in the preparation of the site that includes hoarding, clearing of soil and loose materials, removal of any archaeological findings, and initial excavation. During construction, an area of around 5,000m² will be required for storage of materials, an additional 1,500 m² for pre-assembly and lay down/pre-assembly areas, and 1,500m² are required for site offices and parking. The aforementioned spatial requirements are to be catered for within the confines of the ECOHIVE Complex. Foundations will be laid and lower-level walls constructed. Further excavation and backfilling will follow, with reusable material redistributed across the site, with excess to be re-used or backfilled in quarries. The site will then be fully landscaped with transplanted vegetation. The main building structure will then be constructed and equipment installed. The final phase involves commissioning the completed scheme to ensure all systems and works operate as intended.

Expected waste streams to be processed at the MRF is dry mixed recycling feedstock including polyethylene and polypropylene; PET; other plastics; metals; mixed paper; cardboard and tetrapak from households, bring in sites and civic amenity sites, commercial and industrial recyclable waste.

Below is a summary of the waste treatment:

- Waste separation begins at source in household and businesses which is collected in various forms.
- The waste arrives at the ECOHIVE Complex. Products include plastic film, mixed paper, newspapers and pamphlets, HDPE, PET, mixed plastics, residue, ferrous and non-ferrous metals.
- Material streams are fed in the process through a bag splitter by loading shovels.
- Through a process of size segregation, magnetic filtering, ballistic separators, and optical sorters, the feedstock is processed and separated in various stages.
- At each stage, clean products are extracted from the dry mix.
- A final screening by manual pickers ensures a higher grade of purity of the final product.
- Balers and a compactor are provided to size these products using a large ram to compress the material, so it is densified before exportation.



Figure 1: Site boundary of the proposed development (Source: EIA Coordinated Assessment Report, July 2026)

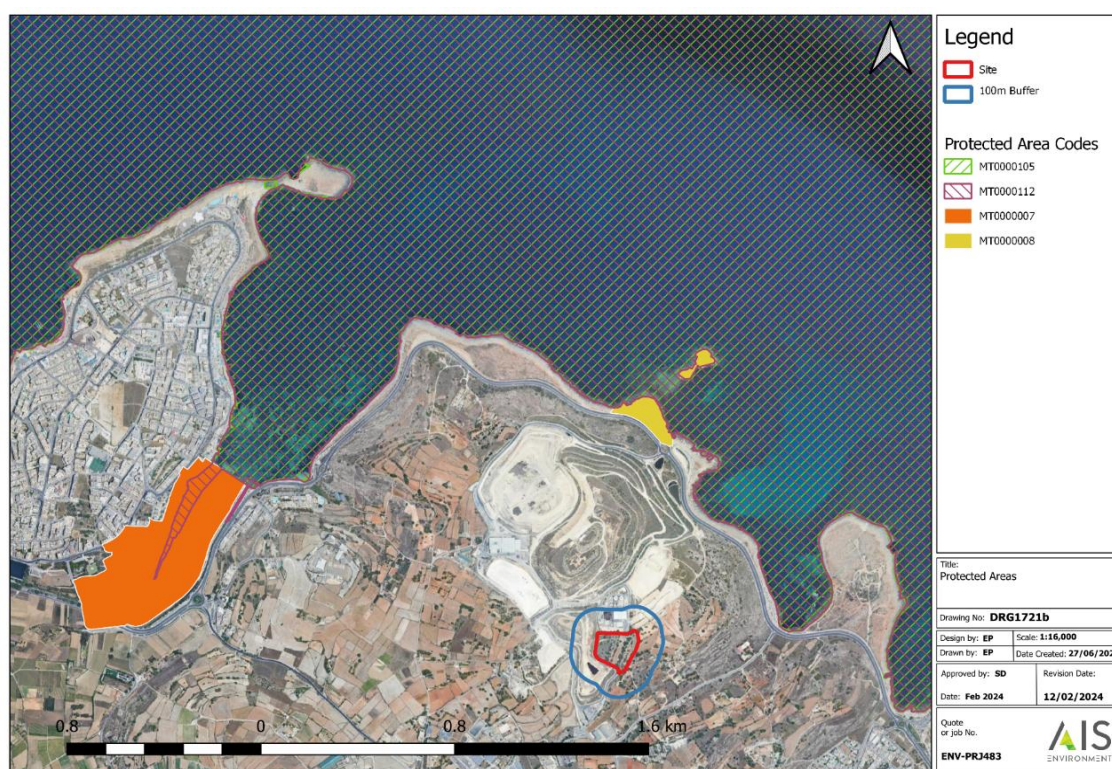


Figure 2: Terrestrial Natura 2000 Sites relevant to the proposed development (Source: Appropriate Assessment Report, July 2026)

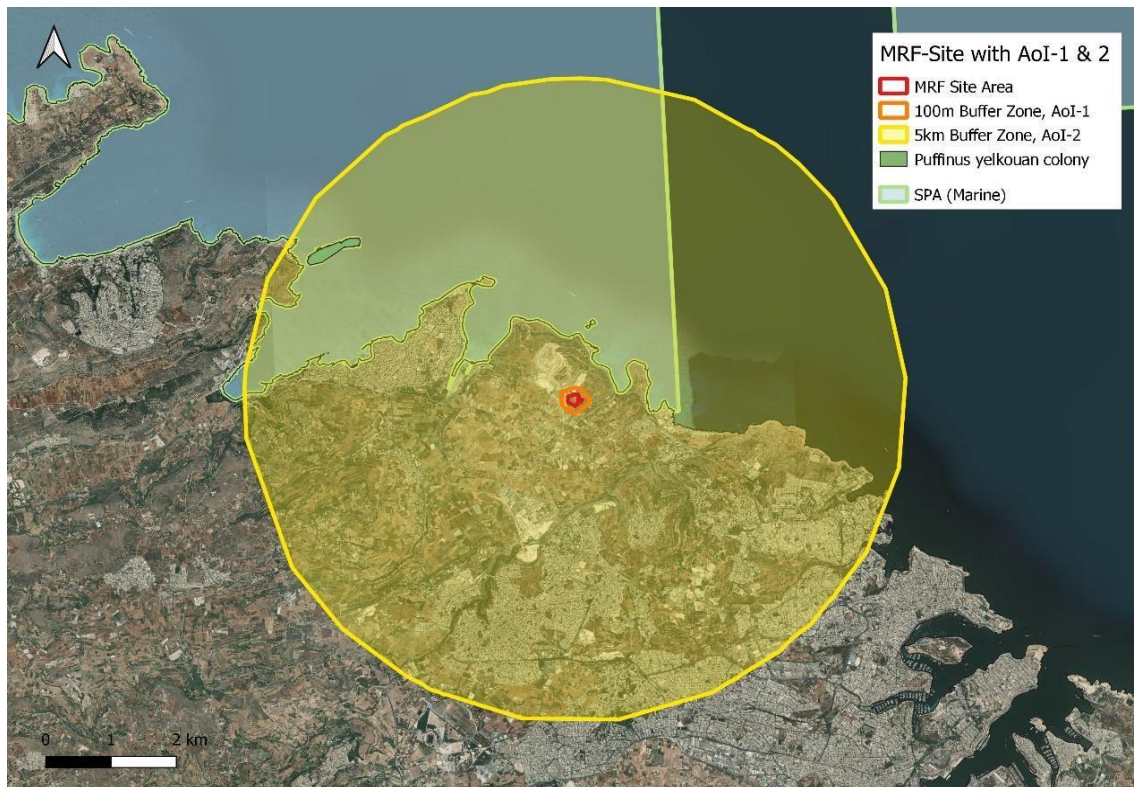


Figure 3: Marine Natura 2000 Sites relevant to the proposed development
(Source: Appropriate Assessment Report, July 2026)

2. EIA CONSULTATIONS

2.1 EIA Scoping

During the scoping stage, the Project Description Statement (PDS) was made available on the ERA website. A public consultation period took place between 28th February 2023 and 30th March 2023. The following consultees were consulted via email during the consultation period:

- Planning Authority;
- Malta Resources Authority;
- Regulator for Energy and Water Services;
- Energy and Water Agency;
- Ministry for Agriculture, Fisheries and Animal Rights;
- Civil Protection Department;
- Malta Tourism Authority;
- Environmental Health Directorate;
- Transport Malta;
- Occupational Health & Safety Authority;
- Superintendent of Cultural Heritage;
- Local Council Association and the Naxxar Local Council; and
- *Environmental NGOs*: ACT Malta, Archaeological Society Malta, Biological Conservation Research Foundation, BirdLife Malta, Bicycle Advocacy Group Malta, Capers Malta, Centre for Sustainable Development, Din L-Art Ħelwa, Entomological Society of Malta, Environment

Commission, Flimkien Għall-Ambjent Aħjar, Fondazzjoni Patrimonju Malti, Fondazzjoni Wirt Artna, Friends of the Earth, Front Harsien ODZ, Għaqda Sigar Maltin, Greenhouse Malta, International Tree Foundation, Light Pollution Awareness Group, Maghtab Residents, Malta Bat Conservation Group, Malta Beekeepers Association, Malta Energy Efficiency and Renewable Energies Association, Malta Organic and Agriculture Movement (MOAM), Malta Health Network, Malta Water Association, Malta Youth in Agriculture, Moviment Graffiti, Nature Trust Malta, Noise Abatement Society of Malta, Ramblers Association of Malta (RAM), Sharklab Malta, and Sustainable Built Environment Malta.

The PDS was also circulated for internal review within ERA.

Within the stipulated consultation period, comments were received from the BirdLife Malta (email dated 17/03/2023), Environmental Health Directorate (email dated 20/03/2023), Malta Resources Authority (email dated 27/03/2023) and Superintendence of Cultural Heritage (email dated 29/03/2023). Feedback is presented in Section 7.1.

The final Terms of Reference were issued on 28th April 2023.

2.2 EIA Review

The EIA Report was submitted to ERA on 4th August 2025 and published on the ERA website for a 30-day period on 31st August 2025 with the public and the same consultees listed above. Notifications of the submission of the Report were published in the form of adverts in local newspapers on 31st August 2025 by the developer. The consultation was also published on the government public consultation portal and circulated for internal review within ERA.

Within the stipulated consultation period, comments were received from the Light Pollution Awareness Group (email dated 01/09/2025), Superintendence of Cultural Heritage (email dated 18/09/2025), Environmental Health Department for Health Regulation (email dated 29/09/2025) and BirdLife Malta (email dated 30/09/2025). No feedback was received from the public.

Comments made by ERA and its consultees during the EIA review were forwarded to the EIA Coordinator and the applicant on 17th October 2025. Comments from the consultees were addressed and responses are included in Section 7.2 of this document.

The final EIA Report was submitted to ERA in July 2026.

3. ASSESSMENT OF ALTERNATIVES

3.1 Alternative sites

- Site 1: Area to the North-East of the proposed Waste-to-Energy facility
 - No specific operational disadvantages (e.g., material transport distances) were identified.
 - Requires major road works before it can accommodate the MRF.
 - Development would involve the take-up of agricultural land.

- Located in close proximity to residential areas, increasing the likelihood of social impacts.
- Located near protected zones, raising environmental concerns.
- Overall assessed as unsuitable for the project.
- Site 2: Area to the West of Żweġra landfill
 - Located sufficiently far from residential areas, meaning construction and operational impacts on residents would be minimal and largely unnoticeable.
 - Located further from other waste treatment facilities within the ECOHIVE complex than Site 3, resulting in longer material transport distances.
 - Requires the take-up of more agricultural land.
 - Located close to known archaeological features, thus leading to a higher possibility of uncovering subsurface archaeological remains during excavation.
- Site 3: Area to the East of Żweġra landfill
 - Located sufficiently away from residential areas, minimising social inconveniences.
 - Closer to other waste treatment facilities in the ECOHIVE complex, reducing transport distances.
 - Requires the take-up of less agricultural land.
 - Existing landform provides better opportunities to mitigate visual impacts.
 - Located further away from known archaeological feature, however the possibility of uncovering subsurface cultural heritage or archaeological features during excavation remains.
 - No other significant disadvantages were identified.
- Site 4: Replacement of the previous MRF facility at Sant' Antnin
 - Site is already developed and previously accommodated an MRF, thus would avoid significant construction impacts associated with the take-up of undisturbed land.
 - Existing traffic and pavement infrastructure is considered adequate to support redevelopment.
 - Previous MRF footprint (6,700 m²) is significantly below the minimum required area (10,000 m²) for effective recycling operations, thus further expansion may be technically unfeasible due to site constraints.
 - Would require a large proportion of Malta's municipal solid waste to be directed to this facility.
 - Located only approximately 400 m from residential areas, increasing the potential for nuisance.
 - Increased traffic and larger-scale operations are expected to cause major inconvenience to nearby residents.

Based on the above, Site 3 was considered the most suitable in terms of size, topography and location.

3.2 Alternative technologies

Alternative technologies for the proposed MRF were assessed to identify the most suitable solution for Malta's waste management needs. The alternatives considered were 'clean MRF' and 'dirty MRF'. A dirty MRF accepts a mixed solid waste stream and then proceeds to separate out designated recyclable materials through a combination of manual and mechanical sorting. The sorted recyclable

materials may undergo further processing required to meet technical specifications established by end-markets while the balance of the mixed waste stream is landfilled. Since municipal waste in Malta is already separated at source, a clean MRF was selected over a dirty MRF, which processes mixed waste streams. Clean MRFs offer advantages such as lower technological requirements, greater community participation in recycling, and opportunities for job creation through manual sorting.

A comprehensive Cost-Benefit Analysis and technical assessment were undertaken to evaluate different technologies, considering health and safety, technical performance, operability, and financial aspects. The analysis concluded that both one-line and two-line configurations could process the required capacity of 70,000 tonnes per year. However, systems with a high degree of automation and higher throughput were found to be the most financially advantageous due to lower operating and maintenance costs and reduced reject rates.

Several technologies, including robotic sorting, cranes, walking floors, bunkers, and racked warehouses, were rejected due to high costs, operational constraints, or technological immaturity. Instead, the preferred design incorporates a split-level reception area, mobile loading equipment, selective optical sorting combined with manual picking, conventional conveyors, and on-site storage within a single building, while maintaining flexibility for future technological upgrades.

3.3 *Layouts*

Three MRF layout scenarios were considered: linear, centralized and modular.

- The linear layout arranges the recycling process in a sequential manner, with waste moving from the reception area through sorting and processing stages to the final storage area.
- The centralized layout concentrates all major processing operations in a common hub, with smaller satellite areas used for temporary storage or initial sorting.
- The modular layout comprises separate units that can be assembled, expanded or rearranged according to operational needs and site constraints.

Due to the space management of the ECOHIVE site and the need to enhance fire safety through compartmentalisation, the modular layout was identified as the preferred option for the proposed MRF.

3.4 *Downscaling of the project*

A key challenge in designing the proposed MRF was accommodating the facility due to the site's constraints. The layout has therefore been carefully optimised to maximise the available space while meeting operational requirements, and any further reduction in the size of its components could compromise the plant's performance.

Any remaining available space on site will be reserved for future technological advancements, such as increased automation and robotic sorting systems. The implementation of such upgrades will be

subject to further Cost-Benefit Analyses to assess their operational costs, reliability and potential to improve the quality of recycled end-products.

3.5 Zero Option

From a national waste management perspective, the development of a new MRF is considered essential, when noting the required recycling performance levels and the need to meet national and European obligations.

The need for a new facility is recognised in Malta's long-term waste management strategy, and a temporary MRF line has already been established at the Malta North facility to partially address the existing capacity gap.

The do-nothing scenario is not considered a viable option, as the proposed MRF is critical to increasing recycling capacity, improving resource recovery, and supporting Malta's compliance with its waste management commitments.

4. EIA FINDINGS

The summary of the characteristics of the site, assessment of impacts, mitigation measures and residual impacts identified in the Coordinated Assessment Report are as follows:

4.1 Land cover and uses

The site *per se* consists of shallow terraced agricultural fields with low-lying trees. It is surrounded by additional agricultural land (located to the southeast of the site), the ECOHIVE complex (including the Żwejra landfill to the west and south of the site, anaerobic digester plant (to the north), and the proposed Thermal Treatment Facility to the north-east). Scattered residential buildings can also be found to the south-east of the site.

Construction-phase residual impacts identified within the Aol:

- The change of land use is *major adverse* even after minimising construction spillover effects and take up of land for temporary storage areas, and addition of landscaping;
- Dust emissions on the surrounding access roads, adjacent fields and trees is *negligible* following measures such as abiding to Construction Management Site Regulations, site hoarding/wetting of working areas and construction monitoring;
- Trampling of vegetation and spill-over effect of construction works onto adjacent fields and trees and access roads is *negligible* following measures such as abiding to Construction Management Site Regulations, and restoring natural areas, and compensation for the loss of species.
- Increased emissions from vehicles on the surrounding agricultural land (also during the operational phase) is *minor adverse* following mitigation that includes minimising idling times, spill trays underneath construction equipment, and planting of wind breakers species adjacent to access road.

Operational-phase residual impacts identified within the Aol:

- Events of oil leaks/spills, accidents, flooding, fires, site failure on the existing roads and adjacent tree plantations and agricultural land are *minor adverse* following the implementation of an Emergency Response Plan.

4.2 Landscape character and visual amenity

A description of the general features of the relevant landscape units is provided in the Coordinated Assessment Report and is divided into general, enhancing and detracting features. A list of potential visual receptors within the Zone of Theoretical Visual Influence is also provided, which includes residents, pedestrians, passengers and drivers, and farms.

A desk study and a field survey were carried out to determine the visual baseline. Six (6) viewpoints were identified to represent short, medium and long-distance views:

- Viewpoint 1: Triq Dawret Il-Wied, Mosta
- Viewpoint 2: Triq Is-Salina, San Pawl tat-Targa
- Viewpoint 3: Triq Il-Kappella Ta' Santa Marija, Magħtab
- Viewpoint 4: Triq Ir-Ramla, Magħtab
- Viewpoint 5: Qalet Marku, Naxxar
- Viewpoint 6: Triq Il-Kosta, St Andrew's
- Viewpoint 7: Triq Ghaxqet il-Għajn, Għargħur

Construction-phase residual impacts identified within the Aol:

- Deterioration of the landscape value during construction from Viewpoint 1 to Viewpoint 7 due to the presence of construction and excavation machinery, cranes, dust, noise, vibration and associated works on the landscape elements is *moderate adverse* following mitigation measures such as adherence to Construction Site Regulations.
- Reduction of the visual amenity of potential visual receptors due to the presence of construction and excavation machinery, cranes, dust, noise, vibration and associated works are as follows:
 - Viewpoints 2, 5 and 6: *minor adverse impact*
 - Viewpoints 1, 3, 4 and 7: *moderate adverse impact*

Operational-phase residual impacts identified within the Aol:

- Deterioration of the landscape value during operation from Viewpoint 1 to Viewpoint 7 due to the presence of the MRF Building and take up of agricultural land on the landscape elements is *major (slight reduction) adverse* following mitigation measures such as the use of earth-toned colours which blend with the surroundings.
- Reduced visual amenity due to the presence of MRF Building and take up of agricultural land on potential visual receptors is assessed as follows:
 - Viewpoints 1 and 2: *minor adverse impact*;
 - Viewpoints 3 and 6: *moderate adverse impact*; and
 - Viewpoint 4, 5 and 7: *major adverse impact*.
- Sustained external lighting at viewpoints 1 to 7 on residents and nearby fauna is *negligible* following mitigation such as strategic placement of external lighting, and shielded and downward lights to avoid residual light pollution.



Figure 4: Viewpoint 1 – The MRF superimposed on the TTF, OPP and WTE photomontages at Triq Dawret il-Wied, Mosta
 (Source: EIA Coordinated Assessment Report, July 2026)



Figure 5: Viewpoint 2 – The MRF superimposed on the TTF, OPP and WTE photomontages at Triq Is-Salina, San Pawl tat-Targa (Source: EIA Coordinated Assessment Report, July 2026)



Figure 6: Viewpoint 3 – The MRF superimposed on the TTF, OPP and WtE photomontages at Triq il-Kappella Ta' Santa Marija, Magħtab (Source: EIA Coordinated Assessment Report, July 2026)



*Figure 7: Viewpoint 4 – The MRF superimposed on the TTF, OPP and WtE photomontages at Triq Ir-Ramla, Magħtab
(Source: EIA Coordinated Assessment Report, July 2026)*



*Figure 8: Viewpoint 5 – The MRF superimposed on the TTF, OPP and WtE photomontages at Triq Il-Kosta, Qalet Marku
(Source: EIA Coordinated Assessment Report, July 2026)*



*Figure 9: Viewpoint 6 – The MRF superimposed on the TTF, OPP and WtE photomontages at Triq Il-Kosta, St Andrew's
(Source: EIA Coordinated Assessment Report, July 2026)*



Figure 10: Viewpoint 7 – The MRF superimposed on the TTF, OPP and WtE photomontages at Triq Ghaxqet il-Għajn, Gharghur (Source: EIA Coordinated Assessment Report, July 2026)

4.3 Geology, Geomorphology, Hydrogeology and Soils

The Area of Influence (Aoi) for the geological, geomorphological, hydrogeological and soil covers a radius of about 500- 600m from the site.

A field survey was undertaken to determine the geology, geomorphology, and soils of the site in November 2022. A geotechnical analysis was conducted to assess ground stability. Additionally, in December 2023, a ground contamination analysis consisted in the sampling of soil and rock cores from four exploratory boreholes. Three soil and rock samples were collected from each of the four areas (A, D, J, and F) at different depths to assess ground contamination.

The excavation phase is expected to generate 51,462m³ of excavated material. From the ground contamination assessment, it was concluded that excavated material from sampling locations A1, D1 and F1 (21,576.68m³) should be kept apart and reused as backfill on site or as landfill daily cover, due to the exceedances that have been noted. Only material excavated from sampling location J1 (29,886.19m³) may be considered for disposal in an authorised quarry.

Construction-phase residual impacts identified within the Aoi:

- The loss of rock strata is *moderate adverse* following measures to offset such impact, such as the reuse or recycle of excavated material;
- Degradation/destruction of surface features is *minor adverse* following mitigation measures such as partial retention through soft landscaping;
- Dust dispersion on the landscape, rock pools and coastal waters is *minor adverse* subject that measures such as haulage of excavated material in covered trucks; use water or pre-soaking to control dust; remove accumulations of dust on surfaces; use barriers to contain dust emissions; and dust extraction and recovery of dust from equipment; no stacking of excavated material that could be washed away by run-off during the rainy seasons are adhered to;
- Silting of coastal waters during excavation is *minor adverse* if works are contained and sediment is filtered before spreading; use of localised silt traps, fences or channels to reduce impact;
- Contamination of excavated rock to be disposed of inert quarries is *minor adverse*. Material to be excavated from A1, D1 and F1 should be kept apart and reused as backfill on site due to exceedances noted. Only material excavated from the area around J1 may be considered for recovery in an authorised quarry;
- The loss of soil due to excavation is *minor adverse*; and
- Stability of the walls during excavation on operatives and 3rd party property is *minor adverse* if excavation is monitored closely and works are stabilised as necessary.

Operational-phase residual impacts identified within the Aoi:

- Spillage incidents during the transportation and loading/unloading into ground and coastal waters are *minor adverse* following mitigation measures such as care during operation of the plant;
- Seawater intrusion due to loss of recharge of aquifer from the paving of the site is *minor adverse* when noting that the groundwater beneath the site is brackish; also noting that the paved area compared to the potential recharge area is relatively small; and

- Application of pesticides and fertilisers to landscaping on groundwater, coastal waters and soil is *minor adverse* when environmentally friendly treatments are used.

4.4 Water bodies

The Aol for water bodies cover a radius of about 500-600m around the facility. Two groundwater samples were collected for chemical analysis.

Laboratory testing of the underlying Mean Sea Level Aquifer found that groundwater quality exceeded Italian Legislative Decree 152/06 limits for three parameters: iron, one hydrocarbon compound, and sulphate. The iron and hydrocarbon contamination are considered historical and likely originate from sources upstream of the site, with no evidence linking them to waste treatment activities. Elevated sulphate levels are likely due to seawater intrusion because of the site's proximity to the coast.

Construction-phase residual impacts identified within the Aol:

- Dust emissions during excavation and from the storage of excavated material is *minor adverse* following mitigation measures such as carting away of excavated material and dust suppression measure to minimise wind-blow dispersion; and
- Contamination of runoff and groundwater resulting from the storage of recyclable waste and rejects is *minor adverse* after mitigation measures such as run-off system collection and adequate discharge in compliance with applicable legislations.

Operational-phase residual impacts identified within the Aol:

- Spillages of sewer and other fluids produced during the operation of the MRF plan, and major incidents during loading /unloading and transport by runoff to ground water and coastal waters are *minor adverse*; and
- The use of pesticides and fertilisers for the maintenance of landscaped areas on water bodies is *minor adverse* if done at the required concentrations and frequency.

4.5 Ecology – terrestrial

The site is presently agricultural with a dense cover of low-lying trees and remnants of local maquis/garrigue community. A broad-brush terrestrial survey was carried out within the 100m Aol in August 2023 and January 2024. Additionally, two reports are also cross-referenced: Ta' Hammud vegetation report II by AGL Desing Landscape Architects, 2018 and a Terrestrial Ecology baseline study by Doublet and Zammit in 2022.

The coordinated assessment lists the vegetative species encountered on site. These include but not limited to a number of caper bushes, 162 Carob trees, 1 Cypress tree, 24 Olive trees, 9 Aleppo pine trees, 48 Lentisk trees. Invasive species encountered on site include 5 tree tobacco, several castor oil trees.

No faunal species were observed during the survey however, previous studies recorded the presence of a variety of mammalian, reptile and insect species. The presence of bats cannot be excluded from the area in view that buildings in the vicinity can provide roosting sites with the surrounding agricultural land offering foraging opportunities.

The site does not lie within or directly adjacent to any protected area, however several terrestrial and marine Natura 2000 sites are located within walking distance of the site.

Construction-phase residual impacts identified within the Aol:

- Loss of terrestrial habitats and species (circa 244 tree individuals) is *moderate adverse* following the transplanting of trees where possible, compensatory planting and monitoring of works;
- Dust generation is *negligible* in view of a temporary accumulation of dust on the immediate terrestrial ecosystems abutting the construction site boundary, after the implementation of mitigation measures such as dust suppression techniques, regular clearing of affected areas and construction monitoring and controlled storage and transport of materials;
- The spreading of particles and contaminants at sea through runoff is assessed as *negligible* after mitigation namely site containment measures; and
- Impacts related to light and noise during excavation, backfilling and building construction are *negligible* following the implementation of mitigation measures such as limiting works to daylight hours, lighting to be used for safety reasons, should be downward facing, shielded and of low frequency, maintenance of equipment to avoid excessive noise.

Operational-phase residual impacts identified within the Aol are as follows:

- Increased light, air pollution and noise generation is *negligible* – with a minor increase in night-time light in previously dark agricultural areas in the surroundings. Mitigation measures include noise spillover using BAT, keeping apertures shut during operational hours; ensure equipment is well-maintained and within national emission limits; and limit night-time lighting to the bare minimum and use of down-facing lights.

4.6 Ecology – avifauna

The Coordinated Assessment notes that five bird species have been reported breeding within the Aol-1 (100m) or in its direct vicinity, and three pelagic seabirds species nest and inhabit the Maltese Islands and waters within the Aol-2 (5km).

Construction-phase residual impacts identified within the Aol:

- Loss of habitats for terrestrial avian species due to destruction of agricultural land ODZ is *minor adverse* following measures such as keep trampling and spillover effects into the adjacent rural areas, and apply landscaping;
- Noise vibration and light pollution on terrestrial avian species in Aol-1, and light pollution on nocturnally migrating birds are *minor adverse* following mitigation measures such as limiting night-time activities, reduce light pollution and avoid sensitive period if possible; and
- Artificial light at night results in colony disturbance and the grounding of Procellariiform seabird (*P. yelkouan*) is *minor adverse* after mitigation measures, namely limit night-time activities, reduce light pollution, and avoid as much as possible sensitive periods.

Operational-phase residual impacts identified within the Aol:

- Loss of habitats for terrestrial avian species due to destruction of agricultural land ODZ is *minor adverse* following measures such as minimising breeding and habitat loss through the addition of landscaping and compensatory nesting installations;
- Exposure of (marine) avifauna to macro-/micro plastics and other harmful substances due to spills and leakages from the facility is *moderate beneficial* when compared to the current landfill situation, after mitigation measures such as setting protocols and infrastructure in place to minimise spills of materials;
- Reduction in methane production from open landfill reducing CO₂ is *moderate beneficial*; and
- Risk of fires from the storage and processing of large amount of flammable materials is *minor adverse* after the implementation of mitigation measures such as achievement of highest standards of fire prevention and response.

4.7 Agricultural land

An Aol of 100m was considered around the facility, focusing mainly on the site.

The loss of agricultural land, resulting in decrease in overall ODZ land resulting from the excavation of the site and construction of the facility is of *moderate to major adverse significance* after the implementation of mitigation measures, such as adherence to PA and ERA conditions and instruction to protect surrounding areas.

4.8 Archaeology and Cultural Heritage

A desk study and field survey (August 2023) were undertaken within the 100m Aol. The study identified two scheduled cultural heritage features and noted the presence of a megalithic remains outside of the Aol. Another important prehistoric site known in the vicinity is the Class A scheduled Ta' Hammud megalithic dolmens, which are located approximately 350m from the eastern boundary

of the site, 250m East of the Aol including the 100m buffer zone, down a minor road (Triq ir-Ramla) leading from the coastal road at Qalet Marku.

Construction-phase residual impacts identified within the Aol:

- Loss of features and change in the context and cultural landscape resulting from excavation and demolition/ dismantling of rural structures and dry-stone huts is *moderate adverse* depending on the implementation of mitigation measures, namely involving the relocation of significant features, if possible;
- Potential damage to cultural and/or archaeological features below the ground during excavation works is assessed as *moderate adverse residual impact* depending on the implementation of mitigation measures (i.e. constant monitoring and use of sensitive construction methods, and maintaining a distance of 50m from listed features to ensure safety); and
- Potential damage to Scheduled sites during excavation works on Taż-Żebbuġija Megaliths and Ta' Hammud site is *negligible*.

During operation, the deterioration of the cultural landscape value on Taż-Żebbuġija and Ta' Hammud archaeological sites due to the presence of the MRF building is *major adverse* after mitigation measures such as the use of earth-tone colours on the façade and landscaping to reduce the impacts of the building.

4.9 Noise and vibrations

The Coordinated Assessment refers to a baseline sound survey carried out for the Waste to Energy facility in 2020. The report took into consideration four noise sensitive receptors (two residential, a nature reserve including a hotel and a beach). A cumulative assessment was also conducted to evaluate combined effects of construction and operational noise.

Construction noise during the operation of the plan and on-site vehicle movement on residents/humans (100m from the site) and wildlife (300m from the site) is assessed as *not significant* following the implementation of mitigation measures (i.e. following of good practice).

Operational noise during operation of the plant and on-site vehicle movement on residents/humans (400m from the site) and wildlife (100m from the site) is *not significant*.

4.10 Infrastructure and utilities

The Coordinated Assessment provides a list of the present infrastructure and utilities, including the 2nd interconnector cable, street lighting, infrastructure and fire management infrastructures within the 100m Aol.

Construction-phase residual impacts identified within the Aol:

- Potential interruptions of second interconnector cable leading to impact on national power supply is assessed as *negligible*;

- Mechanical damage and generation of dust on existing infrastructures and utilities within the access route and buffer zone is assessed as *minor adverse* to *negligible* after the implementation of mitigation measures that include liaison between WSM and the contractor; and
- Interruptions to water and electricity supply within the existing facilities within the ECOHIVE complex is *negligible* after the implementation of mitigation measures that include liaison between WSM and contractor.

Operational-phase residual impacts identified within the Aol:

- Increase Malta's waste recovery capacity is *major beneficial*; and
- Increased load on national electricity grid, potable water and sewage systems is *negligible* after the implementation of mitigation measures that include liaison between WSM and Enemalta and Wate Services Corporation respectively.

4.11 Climate change and adaptation

During construction the release of GHG emissions from construction machinery, equipment, transportation of raw materials, extraction and production of materials is *negligible* following measures such as turning off idle engines, and optimising transportation and site logistics.

Operational-phase residual impacts identified within the Aol:

- Reduce groundwater recharge and flooding resulting from the urbanisation of rural areas is *negligible* following the harvesting of rainwater systems and flood control mechanisms; and
- Reduced GHG emissions from operations due to improved recycling performance is *minor beneficial*.

4.12 Cumulative impacts

The following are the impacts from the simultaneous construction and operation of the waste management facilities listed in the Waste Management Plan within the ECOHIVE complex, including the Waste-to-Energy, Organic Processing Plant, Materials Recovery Facility and Thermal Treatment Facility:

Construction-phase residual impacts identified within the Aol:

- Change of land use and loss of natural land including flora (trees), fauna and habitats is *major adverse* even after implementation of landscaping;
- Deterioration of the landscape value during construction from Viewpoints 1 to 7 due to the presence of construction and excavation machinery, cranes, dust, noise, vibration and associated works on the landscape elements is *moderate adverse*;
- Reduction of the visual amenity of potential visual receptors due to the presence of construction and excavation machinery, cranes, dust, noise, vibration and associated works is *minor to moderate adverse*;
- Loss of rock strata is *minor adverse* after the implementation of measures such as reuse and/or recycle excavated material;

- Dust dispersion on landscape and human health is *minor adverse* after measures such as site hoarding, dust suppression techniques, and silt traps;
- Stability of construction pit is *negligible* following close monitoring during excavation and stabilise as necessary, silt traps to improve sediment control;
- Spillage incident during transportation or storage of hazardous substances on geological strata, soils and water courses is *minor adverse* after the implementation of mitigation measures, namely spill kits, storage areas, bunding systems and oil-water interceptors;
- Fragmentation and loss of agricultural land is *moderate adverse*. No mitigation measures were proposed;
- Continuous disturbance within dark/quiet agricultural area resulting from noise-generating construction activities is *minor adverse* following measures including streamlining of construction activities between sites, and avoiding sensitive periods for bird and bat species;
- Deviation of excavated material from inert landfills is *minor beneficial*;
- Loss of features and change in the context and cultural landscape resulting from excavation and demolition/ dismantling of rural structures is *moderate adverse* depending on the implementation of mitigation measures, such as the integration or relocation of significant features, if possible; and
- Interruptions to water and electricity supply while connecting services to the network is *negligible* after the implementation of mitigation measures, that includes liaison between WSM and contractor.

Operational-phase residual impacts identified within the Aol:

- Deterioration of the landscape value and reduction of visual amenity during operation from Viewpoints 1 to 7 due to the presence of the MRF Building and take up of agricultural land on the landscape elements is *major (slight reduction) adverse*;
- Sustained external lighting at Viewpoints 1 to 7 on residents and nearby fauna is *negligible* following mitigation such as strategic placement of external lighting, and shielded and downward lights to avoid residual light pollution;
- Flooding of the water catchment resulting from paving of agricultural areas is *moderate adverse*. No mitigation measures were proposed;
- Expanded capacity for recycling and reduction of landfilling practices is *moderate beneficial*;
- Emissions from the Waste to Energy and the Thermal Treatment stacks as a result of incineration and emissions from the waste plans is *minor adverse*;
- Odour and atmospheric emissions from the storage and transport of waste, particularly from the handling of organic waste is *minor adverse*, following Best Available Techniques; and
- Cumulative noise impact from the operation of the plants and on-site vehicle movements is *negligible* following Best Available Technologies.

5. Appropriate Assessment findings

Preliminary screening did not satisfactorily eliminate significant, negative impacts that impinge on the integrity of the Special Protection Areas (SPA), Special Area of Conservation (SAC). The full implications of the proposal on the integrity of the habitats and species of the protected sites listed in Section 1.1 above were deemed unclear.

In this regard, an Appropriate Assessment (AA) was requested by ERA in accordance with the Flora, Fauna and Natural Habitats Protection Regulations (S.L. 549.44) to assess whether the proposed development will have a significant effect on the site and its surroundings.

The first AA report was submitted on 4th August 2025 with a final version submitted in July 2026.

The AA identified and assessed the potential adverse effects of the proposed project on SPAs and SAC listed in Section 1.1 above.

Construction-phase related impacts:

- The deposition of airborne and waterborne particulate matter on terrestrial species and ecosystems is *not significant* after the use of hoarding, dust suppressors and application of good construction site practices;
- The generation of noise, vibration and light on Natura 2000 terrestrial species, ecosystems and sites is *not significant*;
- The generation of noise, vibration and light pollution on avian assemblages and nocturnally migrating birds in Natura 2000 within the Aols is *not significant* after the implementation of mitigation measures such as limiting night-time activities, reduce light pollution and avoid (if possible) sensitive periods); and
- Colony disturbance, grounding of seabirds fledglings, and associated induced mortality caused by Artificial Light at Night on Procellariiform seabirds, specifically *P. yelkouan* in the adjacent Natura 2000 sites is *not significant* after the implementation of mitigation measures, namely by limiting nighttime activities, reducing light pollution in accordance with published guidelines, avoid (if possible) sensitive periods.

Operational-phase related impacts:

- Colony disturbance, grounding of seabirds fledglings, and associated induced mortality caused by Artificial Light at Night on Procellariiform seabirds, specifically *P. yelkouan* in the adjacent Natura 2000 sites is *not significant* after the implementation of mitigation measures such as limiting night-time activities, reduce light pollution and avoid (if possible) sensitive periods);
- Exposure of marine avifauna to macro-/micro-plastics and other harmful substances as a result of spills, leakages of material from the MRF into the environment during standard operations including transport or accidents is *not significant* following infrastructure and protocols to minimise spills of any harmful materials onto the environment; and
- Contaminated and/or increased rainwater runoff from the site resulting from increased urbanisation is *not significant* on the adjacent terrestrial and marine Natura 2000 sites.

6. Summary of the consultants' findings

The EIA Coordinated Assessment has identified several moderate to major residual adverse impacts on agricultural land, change in land use and loss of geological material, terrestrial ecology, landscape character and visual amenity, archaeology. Several residual beneficial impacts were also identified, namely the diversion of material from landfill, reducing of GHG emissions, and increase in Malta's waste recovery capacity.

As outlined in the AA, the proposed development is situated in the Aol of four Natura 2000 sites with conservation objectives focused on protecting coastal, salt marshes and marine habitats, as well as seabird populations. The assessment concludes that no significant residual impacts are expected on the terrestrial SACs due to their distance from the site. Impacts on the nearby marine SPA, particularly from construction and operational noise, vibration and artificial light affecting seabirds, as well as risks associated with fire incidents, can be effectively mitigated, and thus residual impacts are not expected to be significant as long as appropriate safeguards are duly adopted at source. The project is also expected to provide a beneficial contribution to climate change mitigation through improved waste management and reduced greenhouse gas emissions.

Residual impacts on habitats, protected species, and ecological processes are considered insignificant. Consequently, the integrity of the Natura 2000 sites is not expected to be adversely affected, and the conservation status of protected species will remain unchanged. The proposed mitigation measures are consistent with the sites' conservation objectives, ensuring that habitat protection and species conservation targets remain fully achievable.