

2025

Wied Dalam Park Project

Project Description Statement

5/2/2025

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Covering the proposal:

Proposed rehabilitation and formation of Dalam Park consisting of afforestation scheme, recreational areas with the use of sustainable materials, formation of above ground reservoir, irrigation system and installation of multipurpose facility for public use. Proposal also includes formation of random rubble walls as necessary.



GVERN TA' MALTA
MINISTERU GĦALL-AMBJENT,
L-ENERĠIJA U L-INDAFA PUBBLIKA



GREENSERV

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Details of Developer

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ECOHIVE Complex

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Wasteserv is responsible for the waste management of all Malta and Gozo.

Throughout the years many landfills, both official and unofficial, were formed around Malta and Gozo. Through the creation of WasteServ the central government has taken the initial step in managing the waste we produce, which, considering the population density together with the individual waste generation is no easy task.

Its main objectives include:

- The organisation, management, and operation of integrated systems for export of waste to destinations outside the Maltese Islands and for waste management, including integrated systems for transport, sorting, reuse, utilisation, recycling, treatment and disposal of solid waste and hazardous waste.
- The organisation, management, and operation of integrated systems for waste management in accordance with the Laws of Malta and the waste management policy and the new Waste Management Plan 2021-2030, whilst simultaneously observing internationally recognised waste management principles.
- The organisation, management, and operation of integrated systems for waste management for other types of waste as may be decided by the Government of Malta or the Ministry responsible for the infrastructure relating to the management of waste.

GreenServ is a new urban greening project implementation arm within WasteServ that has been set up to deliver a new lease of life to Malta's dense urban areas. GreenServ has been involved in several Urban Greening projects, in different localities, with the aim of creating more green spaces for the residents and tourists on the island. The focus is to transform urban, dense areas into a desirable feature that will serve as an open space for public outdoor recreational activities whilst delivering a series of health and well-being benefits to residents.

GreenServ first mandate was to deliver projects that introduced a new concept of urban living aimed at enhancing the quality of green space across an urban landscape characterized by grey spaces and increased traffic congestion that negatively impinge on the quality of life.

These projects aim to convert traffic thoroughfares into green heavens, allowing residents to benefit from improved air quality across their towns.

Through this new arm, WasteServ will continue to broaden its portfolio and reinforce its environmental mission as part of a continuous commitment to preserve the environment for future generations.

Project Vision

The Wied Dalam Project envisions transforming a historically industrialized landscape into a thriving natural sanctuary that balances ecological restoration with community well-being. Spanning approximately 34,000 square meters, this site, once used by the British military for fuel storage and sampling, carries a unique history embedded in its bedrock chambers and ventilation structures. Today, it presents an opportunity for renewal, where degraded garigue can be revitalized into a lush, accessible green space that fosters both biodiversity and social engagement.

At the heart of the project is a commitment to ecological enhancement. The natural regeneration already occurring on-site, with garigue and maquis habitats taking root, will be actively supported through the planting and seed introduction of native species. This will not only restore habitat quality but also strengthen the representation of diverse phyto-communities, ensuring the long-term resilience of the landscape. A carefully designed green boundary will delineate sensitive ecological areas from public spaces, providing a crucial balance between conservation and recreation.

Beyond ecological restoration, the Wied Dalam Project aims to create an inclusive space that benefits the community. The redevelopment of degraded land into a garden will introduce a network of footpaths, seating areas, open green zones, and children's play areas, transforming the site into a welcoming and engaging environment for all ages. In an increasingly urbanised country, such spaces are essential for social development, offering a refuge for relaxation, education and community interaction throughout all of the seasons. By making this expansive area accessible to the public, as outlined in the development strategy, and considering that the area is designated as a rural zone with development restraints, the project aims to preserve its ecological integrity while respecting traditional architecture. Ultimately, the goal is to reconnect people with nature and foster a deeper appreciation for Malta's natural heritage.

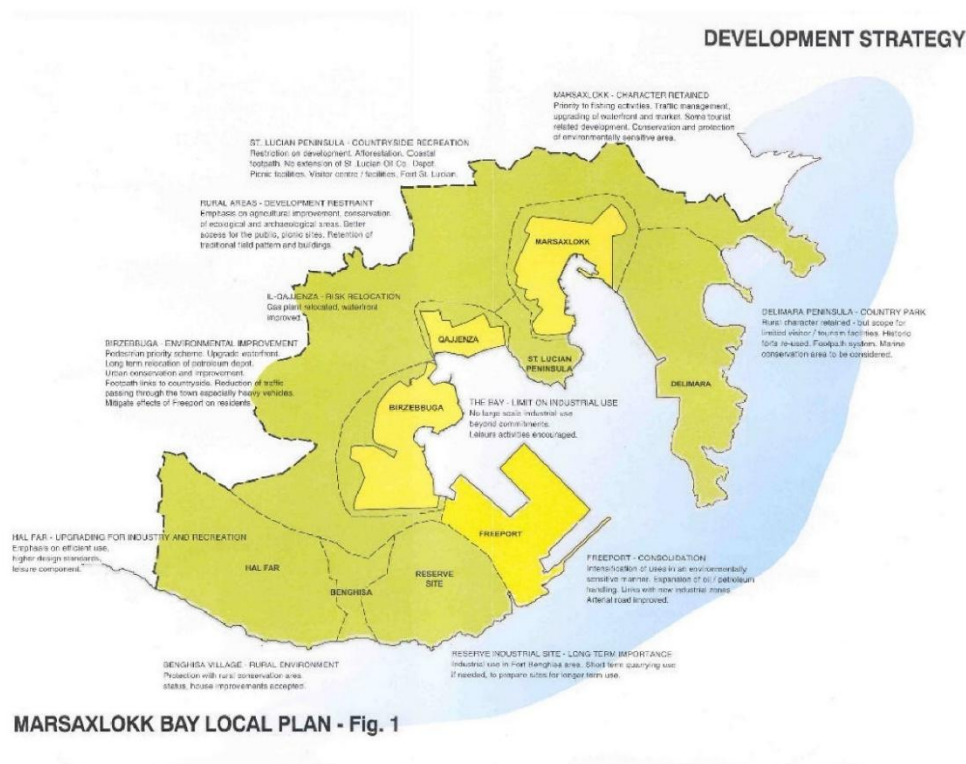


Figure 2: GHAR DALAM NATIONAL PARK Management Plan Brief

Description of the Physical Characteristics

The Wied Dalam park development and conservation project is large-scale aimed at preserving and enhancing the ecological, cultural, and historical significance of the valley surrounding the Wied Dalam Cave in the southeast of Malta. Għar Dalam area is considered to be the most archaeologically sensitive rural area in South-east Malta as it contains remains from several different archaeological periods. It is also here, precisely at Għar Dalam, that the earliest evidence of human settlement in Malta, some 7,400 years ago, was discovered. Besides these important archaeological sites, within the area there are a number of vernacular and military structures which add to the cultural heritage value of the area: Ta Kaccatura Roman, Gunpost and tower, ancient apiary structure, Pumping station, Chapel, etc . While the cave itself is a central feature of the area, this description focuses specifically on the proposed upland above aviation fuel depot. This rehabilitation proposal and formation of Wied Dalam Park consists of afforestation scheme, recreational areas with the use of sustainable materials, formation of above ground reservoir, irrigation system and installation of educational and sanitary facility for public use. Proposal also includes formation of random rubble walls as necessary.

Location and Site Boundaries

The Wied Dalam Valley is situated near Birżebbuġa in southeastern Malta, close to the coast. The site boundaries encompass the entire valley extending from the vicinity of the Wied Dalam Cave entrance to the lower valley basin, covering a stretch of approximately 1.5 kilometres.

Site Boundaries: The northern boundary follows the elevated plateau that demarcates the transition to surrounding urban areas. The southern boundary as outlined in red in figure 2, is defined by the lower valley floor, which connects to the nearby Wied Żembaq. The western boundary tapers off near the cave entrance, while the eastern boundary is flanked by agricultural fields and natural terrain leading to the sea.

Size and Scale:

The project covers approximately 34,000 square meters , extending along the upland of valley's north side decline. It encompasses a diverse landscape of terraced rock features, natural habitats, and historic heritage landmarks. The valley slopes are steep in some areas, grading from 3-15% with elevations meters away from the valley floor to the surrounding plateau.

This depot is important because it's escape, and vent shafts are surfacing.

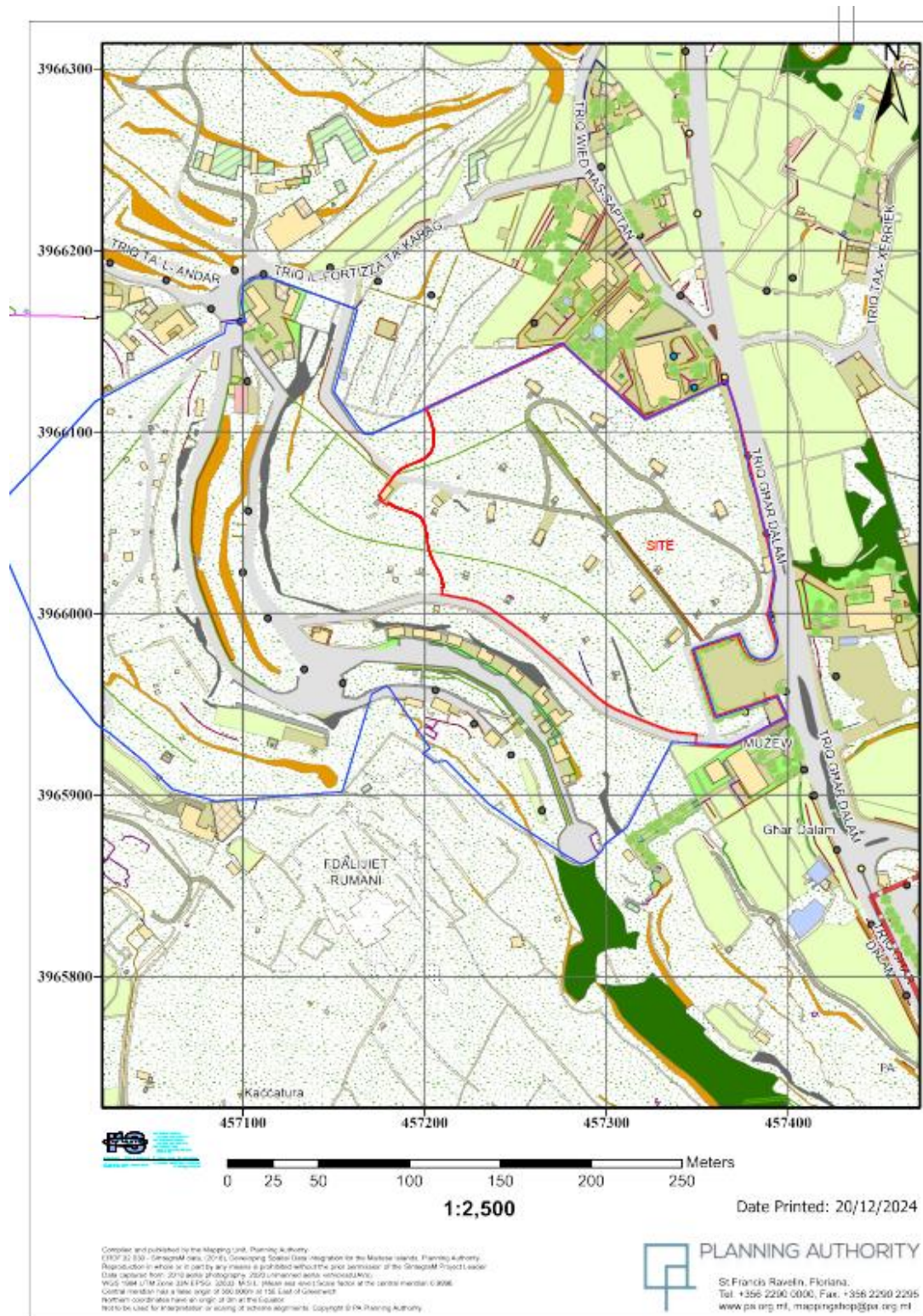


Figure 2: site plan

Key design components

The project adopts a holistic approach that integrates multiple priorities to create a sustainable, inclusive and impactful outcome.

- **Ecological Restoration:** Focused efforts are made to restore and enhance the natural environment, including the removal of invasive plant species, rehabilitation of degraded ecological zones, and implementation of soil erosion control measures. This ensures the long-term health of local ecosystems and supports biodiversity.
- **Industrial Heritage Preservation:** The project strongly emphasizes the preservation of cultural and historical elements within the site. By refurbishing structures such as escape ventilation shafts and preserving existing rubble walls, the initiative maintains the site's historical significance while adapting it to modern needs through the creation of a themed family park. As stated in *GHAR DALAM National Park - Management Plan Brief - 2016 - PQ 17023 (Section 2.7.5 - Industrial Heritage, 2.7.5.1 - Wied Dalam Fuel Depot)*, Wied Dalam is classified as industrial heritage. This historical asset holds significant value, and efforts should be made to integrate it carefully into the visitor experience. The proposal aims to achieve this by developing a comprehensive strategy that highlights the historical, cultural, and architectural significance of the Wied Dalam area. This may include educational materials such as informative signage, guided tours, or interactive displays to help visitors understand its historical context and importance.
Special programs, events, or workshops focused on the site's history and conservation could eventually be organized. To ensure accessibility, pathways and viewing areas should be designed to accommodate all visitors while preserving the integrity of the site.
Collaboration with local experts will be essential to ensuring a respectful and informative approach. Thoughtful planning should balance historical preservation with an enriching visitor experience, ensuring that both the site's heritage and visitor enjoyment are prioritized.
- **Family Park Development:** A dedicated family park promotes a welcoming and vibrant space for recreation, relaxation and community interaction. Equipped with modern park facilities, playgrounds and seating areas, the park encourages families and visitors of all ages to engage with the space. The installed equipment will seamlessly integrate with the surroundings, minimizing disruption. This will be achieved through the exclusive use of natural or recycled materials.
- **Landscaping and Terrace bedding for new mature trees:** Thoughtful landscaping integrates natural elements with functional spaces, creating a harmonious environment that blends ecological features with recreational areas. This includes tree planting, levelling terrain and designing pathways that complement the natural beauty of the site. And also preserving small scale garrigue communities on site. The project will focus on the natural and assisted regeneration of the native garrigue and maquis habitats. These Mediterranean ecosystems, characterised by drought-resistant shrubs and small trees, will be carefully managed to recover their ecological integrity and resilience.
Creating evenly distributed landscaping soil supported by new rubble walls with a goal to create and stabilize agricultural like terraces. Soil erosion will be prevented.
- **Habitat rehabilitation:** Reforestation and the removal of invasive plants, including support of new rubble walls in creation of wet areas throughout a dry season. The scope of such projects is to encourage natural regeneration in the restored sites and potential regeneration in adjacent areas and biotopes. Rubble walls serve many intrinsic purposes therefore they should be introduced. They have been used as borders dividing fields for generations, but the

most important role of these walls is ultimately environmental-related. In fact, these walls serve to filter and stop the soil from run-off and erosion as well as supporting animal life.

To protect sensitive and natural areas from potential trampling and other disturbances, a system of green buffers will be established. These buffers will act as a physical and ecological barrier, preserving the integrity of the restored habitats while still allowing public enjoyment.

- **Access Improvements Pathway and accessibility:** In general, site access will remain the same, from parking area at Triq Ghar Dalam.

The park within the boundaries is pedestrian-only zones, wheelchair-accessible routes and Emergency access route will be created.

Enhancements to visitor access prioritize inclusivity, ensuring the site is accessible and enjoyable for everyone, including individuals with disabilities. Upgrades incorporate the development of educational facilities, open classrooms and accessible restrooms. All designed to provide a welcoming and functional environment.

- **Eco-friendly walking paths and playground zones:** A more formal and accessible for all pathways will serve the entire park, while minor, organically shaped pathways will blend naturally into the site. These are carefully integrated into the landscape, minimizing disruption to the natural surroundings while enhancing connectivity. o harmonize with the landscaping design, beaten-earth pathways and rubble walls will be introduced, creating a seamless blend with the environment. The rubble walls are thoughtfully aligned with existing concrete paths, preserving the natural flow of commuting routes between the escape ventilation shafts, while complementing the site's aesthetic and functional needs.

A trail traversing the public garden is envisioned as more than just a pathway, it will serve as a dedicated biodiversity trail that invites visitors to explore, learn and connect with the local natural and cultural heritage. Along this trail, informational signs will provide insight at both a macro and micro level. Each informational station will be thoughtfully designed and will include a map of the area, descriptions of the different habitat types and context about the significance of Wied Dalam within the broader regional landscape. They will also highlight the diverse habitats present on-site, detailing key flora species and the potential fauna that visitors might encounter. By offering a closer look at the intricate ecology of Wied Dalam, the trail becomes a living classroom where nature and history converge. Historical aspects of the site will also be featured, allowing visitors not only the biodiversity but also the legacy of the area. This approach not only enhances the visitor experience but also reinforces the overall goals of the project by bridging the gap between public enjoyment and ecological education. In doing so, the trail promotes environmental awareness and fosters a sense of stewardship, encouraging community engagement and conservation efforts.

improve natural water drainage systems. Strategically placing boulders and aggregate prior to placing a soil layer.

-Boundary Fencing: Install metal mesh fencing on steel poles along boundaries to secure the site, protect key areas and unsecured zones.

-Soil Erosion Control and Levelling: As mentioned earlier, implement soil erosion prevention measures and level the terrain to stabilize the land and support future landscaping with mature trees.

-Irrigation Infrastructure: Construct a new water tank of 180 m³, to support irrigation during dry seasons.

-Rubble Walls: New rubble walls will be built to contain soil and define play zones, improve aesthetics, or support conservation efforts emphasizing the architectural and historical character of the area, As stated in *GHAR DALAM National Park - Management Plan Brief - 2016 - PQ 17023* (Section 2.7.6.3 - Dry Stone Walls and Other Architectural Features). Additionally, the existing rubble walls on-site will be preserved and restored while maintaining their original form, historical significance, and architectural character. The primary objective is to uphold the integrity of these structures, respecting their historical and aesthetic value. Restoration efforts will focus on repairing any damage while retaining the original design and materials whenever possible. Where necessary, modifications will be made to align with Health and Safety regulations. Additionally, new rubble walls may be constructed to contain soil, define play zones, enhance aesthetics, or support conservation efforts, ensuring they remain in harmony with the site's character.

- Planting native flora: Particular trees and shrubs to be planted to create unique diversity of vegetation, characteristic for the area, while keeping tree free zones of 5m in radius around each vent shaft buildings (26 in number) for a safety reasons.

-Culvert Improvements: Upgrade existing culverts to enhance water flow and prevent blockages. Restoration of stone walls and natural irrigation systems complements with new rubble walls, which are segregating area in 3 run off zones like agricultural terraces.

-Ventilation Shafts Refurbishment: Refurbish the exterior of escape ventilation shafts (26 in number) to improve durability and appearance. It will consist of pointing stone walls, roof waterproofing, painting of metal apertures and railings.

-Park Equipment: New park equipment will be installed at eight locations to enhance functionality and visitor experience, with each site featuring safety wood chips as finish flooring. Four locations will include custom-made timber features designed to resemble World War II crafts, while two locations will cater to adventurous play with installations such as zip line and tube mazes.

The remaining two locations will be designed with safe playground features specifically intended for the youngest children and children with disabilities.

-Eco-friendly multipurpose Facility: This will be developed to support learning, community engagement and various activities. These facilities will include an inclusive educational and multipurpose space featuring an open classroom, accessible restrooms for all and a dedicated park maintenance room to address operational needs. Furthermore, the construction will incorporate eco-friendly designs, including educational displays to promote sustainability and environmental awareness.

Operations and Process Flow, Nature of Inputs and Outputs

Inputs:

- Construction materials (e.g., stone for pathway surfacing, wood for roofing, play equipment and decks).
- Equipment for soil transport and landscaping (e.g., small-scale excavators, and hand tools).

Outputs:

- Enhanced public access to the valley via eco-friendly pathways.
- Improved ecological balance through habitat restoration.
- Increased educational value with interpretative signage and guided trails.

Infrastructural Services:

- Installation of **solar-powered lighting** along pathways.
- Rainwater harvesting systems for irrigation of newly planted areas.
- Drainage improvements to manage seasonal water flows and prevent erosion.
- Information boards

Civil Works and Water Management

Erosion Control: Strategically positioned boulders and new rubble walls to stabilize steep slopes and define walking paths.

Reservoir and Irrigation: A reservoir and irrigation system to be installed for efficient watering of the vegetation.

Fencing: The lower perimeter of the valley to be fenced to define the project's extents and ensure safety.

Sanitary Facilities: Restrooms and maintenance rooms will be constructed of stone and timber in an eco-friendly manner.

Paving:

- Paved surfaces will provide smooth, slip-resistant pathways for visitors, made of slate pavement.
- All joints between paving slabs or blocks will be flush, level and filled with grouting material to prevent ridges.

Lighting and Security: Solar-powered night illumination (streetlights and ground balustrades type), emergency flood light system and CCTV cameras will be installed together with Wi-Fi system.

Demolition and Restoration:

- Reinstatement of eroded rubble walls.
- Removal of 4 courses at street Wied Dalam boundary wall, reinforcing it internally to support new soil level and install see through fencing for safety.

- Dismantling of parking boundary wall, creating two new access gates, one for emergency vehicular and one for pedestrian access.

Environmental Sensitivity and Impact

The valley is recognized for its ecological and historical importance, and the following features will influence the project:

Soil and Biodiversity:

- The valley supports a variety of native plants, reptiles, and migratory birds. Special attention is required to protect endemic species and restore degraded habitats.
- Measures to protect endemic plants and animals in the valley.

Hydrological Features:

- Natural watercourses that traverse the valley will be preserved and integrated into the landscaping plans.

Cultural Heritage:

- The area around the Wied Dalam Cave is a designated heritage site, requiring measures to protect archaeological remains and historical elements.

Water Management:

- Restoration of natural drainage systems to prevent flooding and erosion.

Waste Management:

- Waste generated during construction will be minimized and disposed of responsibly.

Residues, Emissions, and Natural Resource Use

- **Residues:** Minimal construction debris, which will be removed or reused where feasible.
- **Emissions:** Solar power for lighting and benches will reduce the carbon footprint.
- **Natural Resources:** Sustainable practices such as rainwater harvesting and renewable energy systems will be implemented.

Observation and Recreational Opportunities

Observation Decks: Provide vantage points for students and visitors to study the valley's ecology and biodiversity.

Recreational Features: Include zip line installations and shaded picnic spots.

Key Highlights

Sustainability: Integration of solar power, eco-friendly materials ensure minimal environmental impact and project longevity with minimum maintenance.

Educational Value: The project is designed to engage children, students, and families, combining heritage and recreation. Policy MB25 relates directly to the designation of a heritage park on the outskirts of Birżebbuġa. Għar Dalam and Borg in-Nadur are neighbouring locations in which a variety of interesting archaeological remains have been discovered. The area around Għar Dalam and Borg in-Nadur shown on the Policy Map will be designated as a “heritage national park”.

Cultural Connection: The trail and attractions highlight the valley’s rich archaeological industrial heritage and historical significance, raising awareness of its value.

Conclusion

This redevelopment initiative for Wied Dalam is composed shape sustainable heritage conservation and eco-tourism in Malta, offering visitors an immersive, educational and environmentally conscious experience. The Wied Dalam project is an ambitious yet carefully planned endeavour. It combines ecological restoration, cultural heritage preservation and improved visitor access while maintaining a strong focus on sustainability and minimal environmental impact.