

7.10 Woodlands and Olveston Local Area Plan

7.10.1 The Development Area and Existing Conditions

Woodlands and Olveston are residential areas that provide a significant catchment for the village centres of St Peters and Salem. They form part of the Beachettes area, a specific development of residential sub-divisions created during the 1960s, located south of St Peters between the protected Centre Hills forest and the west coast. The Local Area covers 446 acres.

Land Use and Social Infrastructure

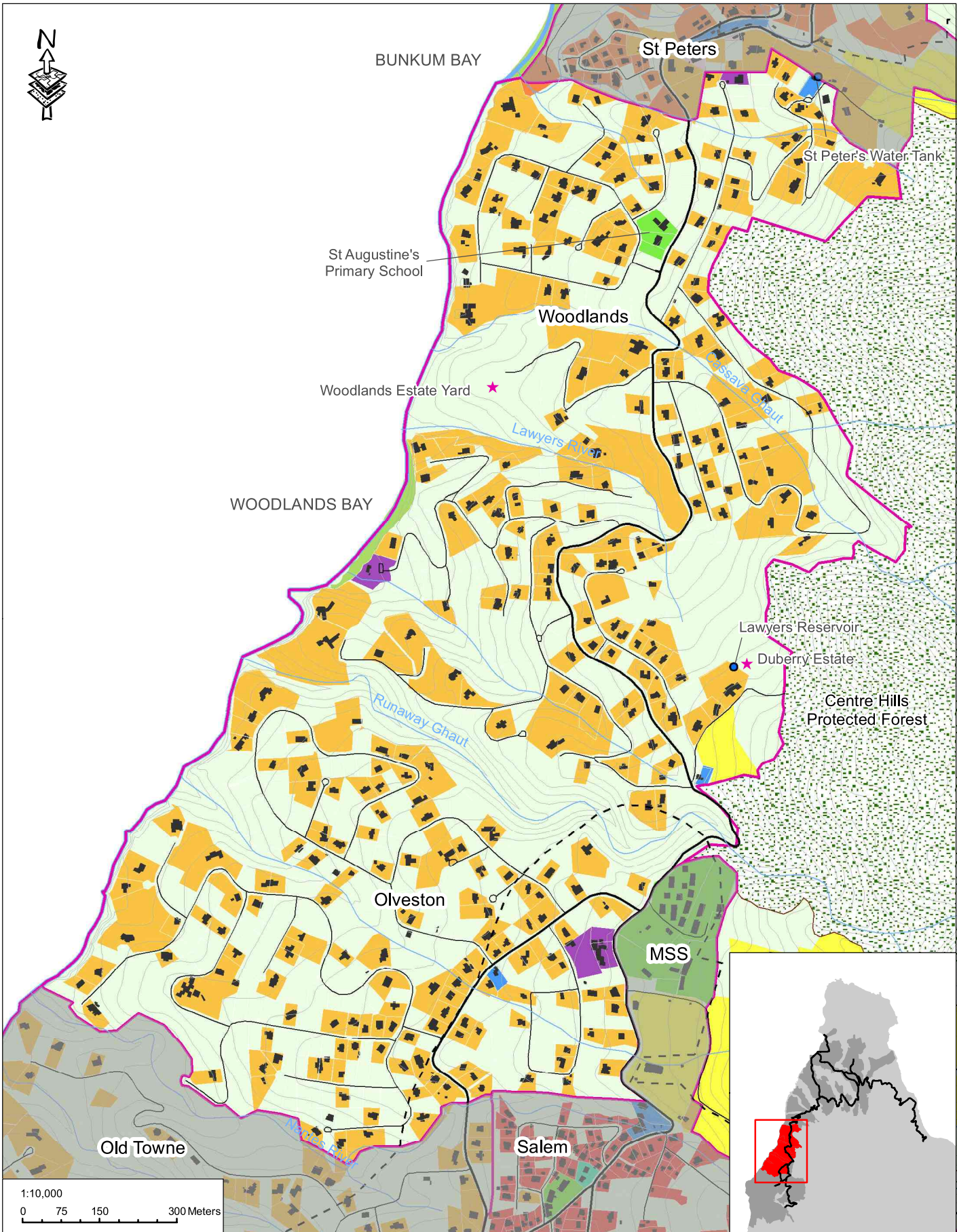
Existing land use is illustrated in Figure 7.16. The majority of land is occupied by residential units and undeveloped lots. Today these villas are owned by a mixture of Montserratians and expatriates. These residences make an important contribution to Montserrat's economy. Villa construction, upgrades and maintenance employ a wide range of people. Many villas are also rented to tourists, providing an attractive high-end destination for holiday makers. Resident and vacation villa occupants support local supermarkets and other outlets. There are also several other land uses in the area including offices, St Augustine's school, a pre-school nursery, several guesthouses, and three restaurants.

Land use is restricted by covenants that property owners sign as part of the terms of their property deeds. These restrict the size and type of building permitted on residential subdivisions, set out guidelines on how a property should be kept looking visually attractive and also restrict commercial activity on these properties. Existing commercial enterprises have generally been accepted as they add value to a community.

Woodlands beach is an important feature of the area and provides one of Montserrat's most attractive and well serviced beaches, important for recreation and social activities.

Infrastructure and Services

The area was developed with a network of access roads in proportion to the scale of development. This has provided a pleasant and tranquil system of roads throughout the area; Government is responsible through its Public Works Department for road and verge maintenance. The area is fully serviced by water, power and telecommunications networks. Each plot has individual septic tanks for wastewater.



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Legend

- Main Roads
 - Minor Roads
 - Rivers and Ghauts
 - 2012-2022 LAP Boundaries selection
 - - - 2000-2009 LAP Boundaries
 - ★ Heritage Sites
- | | |
|--|--|
| <ul style="list-style-type: none"> Existing Land Use Resi High Density Resi Medium Density Resi Low Density Commercial Government Agriculture | <ul style="list-style-type: none"> Education Health Social Care Community, Recreation and Sport Religious Industrial Protected Forest Vegetation |
|--|--|

PHYSICAL DEVELOPMENT PLAN
FOR NORTH MONTSERAT
2012-2022

Woodlands and Olveston
Existing Situation (2011)

January
2011

Figure 7.16

Woodlands borders the Centre Hills, the principal water catchment area in the north of Montserrat and the Lawyers reservoir is located on this border. Similarly, the Olveston reservoir is located where the Olveston area borders the Centre Hills.

Heritage and Environmental Features

From its eastern boundary on the Caribbean Sea to its western boundary with the Centre Hills, this area supports a rich and healthy bio-diversity. The low density pattern of development is one that has allowed nature to flourish. Pockets of dry forest are interspersed between residential plots, while expansive riparian strips and green buffers line the major ghauts which flow west from the peaks of the Centre Hills, including the critical drainage pathways of Runaway Ghaut and Lawyers Rivers. Runaway Ghaut also has a place in local folklore and is a tourist attraction in its own right

Large vegetated garden spaces have altered the natural distribution of plant species, providing a diverse habitat which has encouraged a range of bird types into the area. The proximity of the coastal zone, means that sea and wading birds are also common – Brown Pelicans are a regular feature in the calm waters of Woodlands Beach Bay. Woodlands Beach is also one of the most important sites on the island for nesting Green and Hawksbill Turtles, while an artificial reef in the Bay offers a promise for divers and swimmers.

The buffer areas of the LAP, adjacent to the Centre Hills, offer quite a different environment as vegetation type shifts towards a more defined forest structure containing transitional areas of shrubs and close canopy trees. The area around Cassava Ghaut is particularly noteworthy as the only known location of the restricted range and critically endangered Montserrat Galliwasp.

Archaeological and heritage features within the LAP boundary are largely associated with the plantation legacy of the Woodlands and Olveston Estates. Significant heritage sites in the LAP area include the standing remains of the Duberry Estate Plantation and the Woodlands Estate Yard. See Appendix F(1 for a description of these sites. The Montserrat National Trust is also located in the Local Area and contributes to the conservation and preservation of Montserrat's heritage. A key tourist attraction, the Trust's botanical and Amerindian Gardens are particularly noteworthy.

In addition to matters relating to disaster risk, key issues affecting this LAP include the proliferation of loose and feral livestock which graze indiscriminately, poor waste management practices which encourage rats and other vermin and the dumping of major items, including scrap metal.

Disaster Risk

Part of the LAP area comprises Hazard Zone A (as defined by the MVO in November 2011, but reference should be made to the MVO website for the current zone boundaries). Unrestricted access is permitted in Zone A except when the Hazard Level is at Level 5. Similar to the rest of the island, the area is also at risk from hurricane and seismic events. There is a risk of localised flooding, especially around the ghauts that carry water from the Centre Hills through the area to the west coast. The table below indicates local vulnerability to disaster.

Hazard	Vulnerability	Specific areas
Volcanic	low	Zone A, as defined by the MVO
Seismic	medium	General
Hurricane / high wind	medium	Particularly tops of ridges and funnelled slopes facing east
Flooding	low	Run-off on slopes and where ghauts cross roads
Storm surge / tsunami	none	
Land slide / rockfall	low	Steep topography in some areas

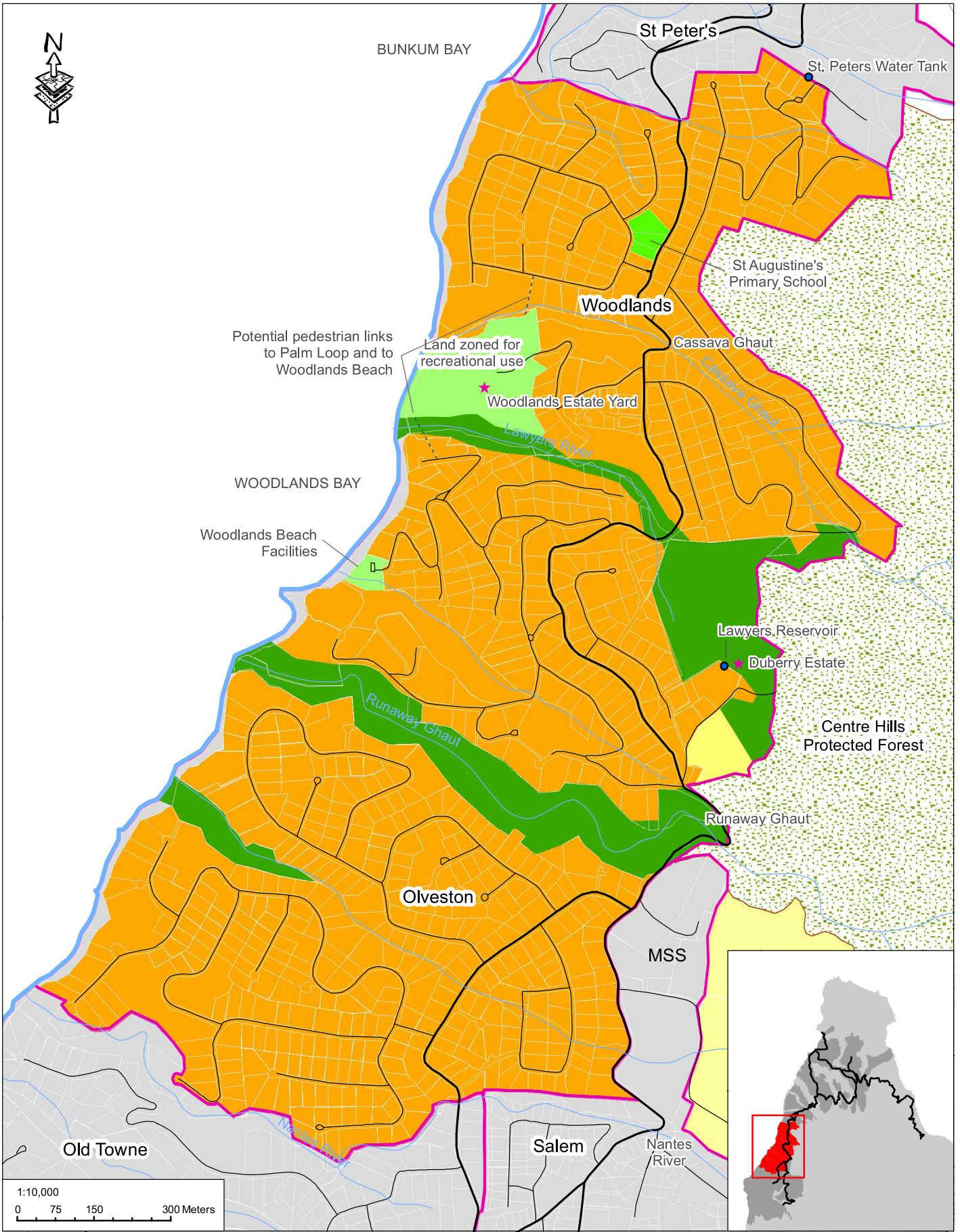
7.10.3 Development Opportunities and Constraints

Opportunities:

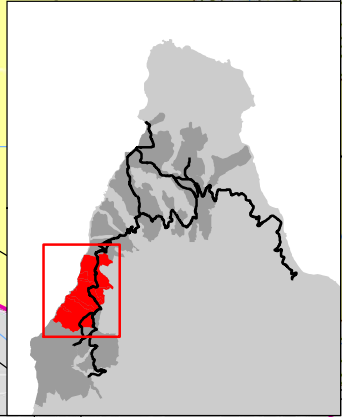
- Approximately 130 acres are available for development, not taking into account land ownership issues, based on the Developable Land Evaluation in Section 5.
- A number of vacant lots are available to be developed for residential use with gently sloping topography and views over the west coast or inland towards the Centre Hills.
- The area is also suitable for holiday rental villas and guesthouses.

Constraints:

- The areas within Zone A are subject to controlled access when the MVO sets the volcanic risk at Hazard Level 5.
- Development is subject to restrictive covenants.



1:10,000
 0 75 150 300 Meters



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Legend

- Main Roads
- Minor Roads
- Rivers and Ghauts
- 2012-2022 LAP Boundaries
- ★ Heritage Sites

- Land Use Zones**
- Residential
 - Education
 - Recreational
 - Agricultural
 - Conservation Area
 - Protected Forest

PHYSICAL DEVELOPMENT PLAN
 FOR NORTH MONTSERAT
 2012-2022

**Woodlands and Olveston
 Land Use Zones**

January
 2012

Figure 7.17

7.10.4 Policies and Proposals

General Strategy

It is expected that the existing residential land use will continue to grow during the plan period to 2022. The Beachettes area is seen as a unique asset to Montserrat. Applications for appropriate commercial activities such as guesthouses will be reviewed on a case by case basis and considered favourably when they add social and community value to the residential community. (See **Policy H3**)

Policies

Policy LAP8.1 – Continued residential growth will be encouraged throughout the LAP area

Policy LAP8.1 - Eight acres of land is allocated for recreational use north of Woodlands beach as illustrated in Figure 7.17. (See **Policy RL10**). Consideration is to be given to developing pedestrian links as indicated in Figure 7.17.

Policy LAP8.1 - The St Augustine's School site is formally zoned as educational land and consideration is to be given to accommodating its needs to expand on adjacent land. (See **Policy E2**)

Policy LAP8.1 - Development is not permitted in the green buffer zones identified in Figure 7.17. These are generally ghauts and, as such, play an important ecological and flood mitigation role and act as an attractive visual backdrop to many dwellings.

Infrastructure and Service Proposals

- Consideration is to be given to improving road side drainage where necessary throughout the area.
- Public roads will continue to be maintained by the PWD and road side vegetation trimmed appropriately.
- Any street lighting projects must include public consultation.
- Potable water capacity in the area will be increased in line with demand as vacant lots are occupied and demand grows.
- As traffic levels grow, consideration may be given to developing footpaths along the heavier trafficked roads.

7.11 Salem Local Area Plan

7.11.1 The Development Area and Existing Conditions

Salem, including the local settlements of Happy Hill, Hope, Fleming and Frith, is a sizeable settlement lying in the extreme south of the northern zone. Parts of it are in Zones A and B of the Hazard Zone system as set by the Scientific Advisory Committee (SAC). The area was evacuated during the volcanic activity of the late 90's but has been re-inhabited since 1998. Salem has changed significantly since the volcanic activity of the mid '90s. It used to be one of the key commercial centres on the island but has since lost much of this activity. Salem is bordered to the west by the residential subdivisions of Old Towne and Olveston. The Centre Hills contain its eastern boundary and to the south lies the Belham Valley which has become an unstable deposit of volcanic material where there was previously a golf course. The land is generally gently sloping but becomes steeper towards the Centre Hills in the east. A number of significant ghauts run through the Salem area including Nantes River and Doctor Ghaut.

Many parts of the settlement area are vegetated and there is a high concentration of mature trees throughout the area.

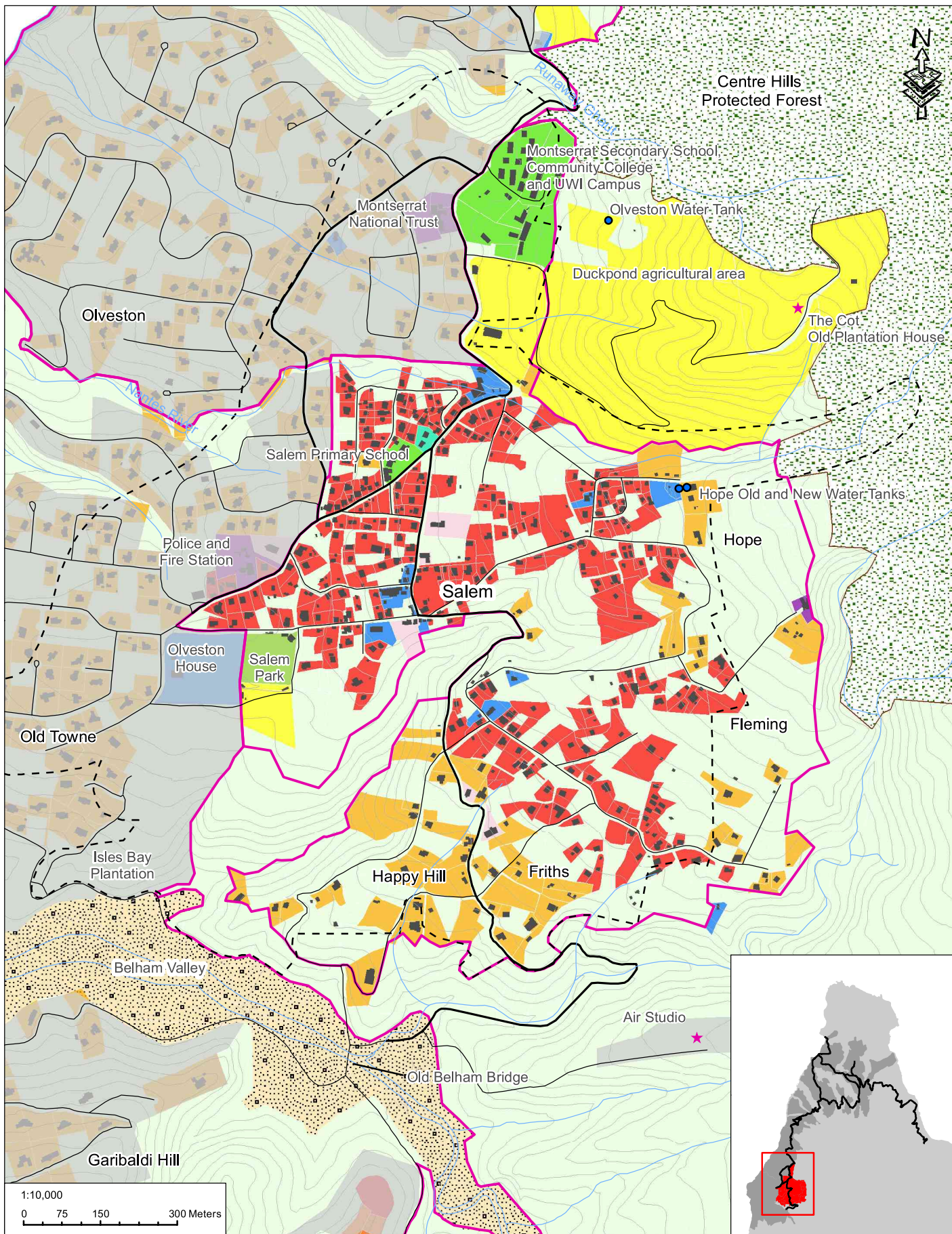
Land Use and Social Infrastructure

Salem has changed since the volcanic activity from one of the main village centres to an area starved of investment and poorly maintained. The LAP area covers 271 acres. There is a small concentration of shops in the centre of the village. Salem Park is the island's second cricket pitch, along that at with Little Bay, and provides facilities for a range of sports and events for the local and the national community.

There are several churches in the area, many of which act as hurricane shelters. Salem Primary School occupies a site which is no longer used as a school. Although the School is used as an ad-hoc community centre there is no formal facility available to residents. There is a combined police and fire station to the west of the area.

The outlying areas have a majority of residential land use with a few shops and services in places. Although the Beachettes areas (particularly Olveston, Old Town and Isles Bay) are not considered part of this LAP, they provide a significant catchment for the services and shops in Salem.

The majority of land is privately owned and much is subdivided into smaller lots.



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Legend

- Main Roads
 - Minor Roads
 - Rivers and Ghauts
 - 2012-2022 LAP Boundaries
 - 2000-2009 LAP Boundaries
 - ★ Heritage Sites
- | | |
|---|---|
| <ul style="list-style-type: none"> Existing Land Use Res High Density Res Medium Density Res Low Density Commercial Government Agriculture | <ul style="list-style-type: none"> Education Health Social Care Community, Recreation, Sport Religious Industrial Protected Forest Vegetation |
|---|---|

PHYSICAL DEVELOPMENT PLAN
FOR NORTH MONTSERAT
2012-2022

Salem
Existing Situation (2011)

January
2012

Figure 7.18

Infrastructure and Services

Salem is at the southern extent of the A01 road that runs north to St John’s. This is the only route of access and egress to the north of the island. The road network in the area is currently in a poor state of repair and many of the side roads are very narrow. There are several unpaved roads leading to residential areas.

Several dwellings in Hope are not connected to the mains water supply and do not have an access road. There is a local perception that Salem is the area worst affected on island by power cuts and phone line problems.

There remain significant quantities of government owned social housing in the Salem area – 21 wooden family units in Friths and Hope in 2011.

Heritage and Environmental Features

There are few notable archaeological and heritage remains within the Salem LAP boundary. However, the Walker Building is a wooden structure of local heritage importance. The old mill adjacent to Gourmet Gardens restaurant is of some significance as is the old Olveston airfield petrol pump in the same location. Much of the area is well covered in vegetation comprising many mature trees, bushes and scrubland. Residential areas generally maintain a high level of vegetation cover. Feral livestock is a particularly severe problem in the Salem area and a constraint to growth of new vegetation and local produce.

Disaster Risk

Part of the LAP area comprises Hazard Zones A and B (as defined by the MVO in November 2011, but reference should be made to the MVO website for the current zone boundaries). Unrestricted access is permitted in Zone A except when the Hazard Level is at Level 5. Zone B is subject to ‘controlled access’ for Hazard Levels 4 and 5. Despite the presence of several ghauts the area does not suffer from flooding. However the road connecting Salem to the rest of the northern part of the island is vulnerable at the points where they cross ghauts and could be washed out during a major rainfall event. The area is more protected from high wind than many other parts of the island although it remains vulnerable during the hurricane season. The table below indicates local vulnerability to disaster.

Hazard	Vulnerability	Specific areas
Volcanic	medium	General
Seismic	medium	General
Hurricane / high wind	medium	General
Flooding	low	Where the Ghauts cross the roads
Storm surge / tsunami	none	
Land slide / rockfall	low	Near the MVO. Along the edges of major ghauts

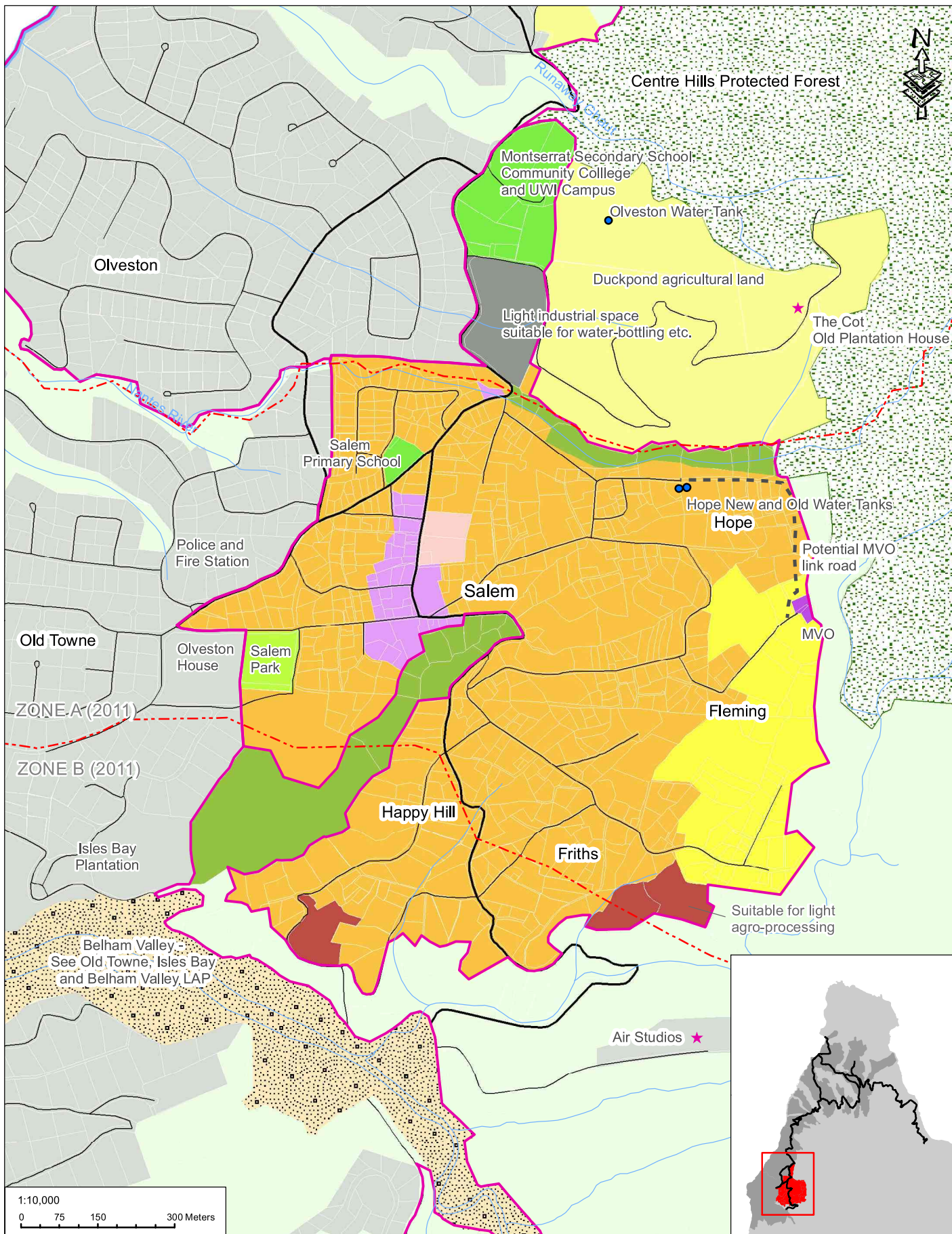
7.11.3 Development Opportunities and Constraints

Opportunities:

- Approximately 161 acres are available for development, not taking into account land ownership issues, as based on the evaluation of developable land in *Section 5*.
- The Salem area has a significant amount of undeveloped land. This implies that there is significant potential for infilling residential areas and many opportunities for other types of development.
- There are several un-fragmented areas development land suitable for agriculture. Some areas are relatively attractive for small scale industry and agro-processing activities. A German company currently holds planning permission for a water bottling plant on the site adjacent to the MSS.

Constraints:

- While Zone B has no restrictions to development (in 2011) it remains an area subject to rapid change in risk level, depending on the volcanic activity.
- A significant constraint is the reduced access to finance and insurance as bank and insurance companies provide very limited services at the expense of significant collateral in another location north of Nantes River. Furthermore, the reluctance of GOM and DFID to fund infrastructure in this area is constraining development and discouraging people from investing in the area.
- Road condition and capacity also hinder access to many local areas, particularly in Hope and Flemings.



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Legend

- Main Roads
 - Minor Roads
 - Proposed Road Links
 - Rivers and Ghauts
 - Hazard Zones (2011)
 - 2012-2022 LAP Boundaries
 - ★ Heritage Sites
- Land Use Zones**
- Orange: Predominantly Residential
 - Purple: Residential / Commercial
 - Yellow: Agricultural Homesteads
 - Pink: Religious / Community
 - Green: Education
 - Light Green: Recreational
 - Light Green: Conservation Area
 - Grey: Agroprocessing / Industrial
 - Dark Red: Light Industrial
 - Purple: MVO
 - Green with dots: Protected Forest
 - Light Green: Vegetation

PHYSICAL DEVELOPMENT PLAN FOR NORTH MONTSERAT 2012-2022

Salem Land Use Zones

January 2012

Figure 7.19

7.11.4 Policies and Proposals

General Strategy

Salem must not be allowed to deteriorate due to a lack of public and private investment. The area constitutes a valuable inhabitable area of north Montserrat. Action to stop the decline of Salem will avoid difficult social and financial problems into the future. There is no greater risk to the majority of Salem (areas not in zone B) than there is to the rest of the island in terms of violent volcanic activity such as pyroclastic flows. The area is susceptible to ashing but, depending on wind direction, this is a vulnerability of the entire island.

Based on population projections and land availability, the area is likely to expand from a 2006 population of 688 to a population of 1,020 by 2022. Salem will continue to grow as a vibrant commercial centre with an important sports venue at Salem Park and a national public events space in the village centre. A local market established in the village centre is likely to attract a wider range of people to the village centre which will provide a base for attracting new businesses. Residential development will grow in all areas although a higher concentration of agricultural activity is encouraged in the south east of the Local Area around Fleming. Light scale industries are encouraged in appropriate locations. The area and its facilities and amenities should be made particularly attractive to middle income families, as well as catering for all other age and income brackets, as they will help drive forward a successful local village and economy.

Policies

Policy LAP9.1 – Land is allocated for residential and commercial development in the Salem area as indicated in Figure 7.19. High and medium density residential growth is encouraged.

Policy LAP9.2 – Agricultural development or agricultural homestead development is instead encouraged in the east of the Local Area, as illustrated in Figure 7.19.

Policy LAP9.3 - The consolidation of Salem village centre is encouraged with predominately commercial land use designated. Shops and services are encouraged to develop in this area.

Policy LAP9.4 - Land is to be allocated for a simple covered market to revive commerce in the village centre and to provide local farmers with an official outlet. Appropriate parking and access must be included in the development. This should be developed in consultation with local stall holders and farmers.

Policy LAP9.5 - Open space is to be preserved in the centre of Salem village for public events such as St Patrick's Day celebrations.

Policy LAP9.6 - Land is to be allocated for a playground suitable for children.

Policy LAP9.7 - The architectural heritage and character of the Salem village centre is of value to local society and for Montserrat's tourism. As stated in national *Policy TE10*, the centre Salem is to be designated a character area such that its protection and enhancement will stimulate a vibrant cultural area.

Policy LAP9.8 - Land is allocated for the development of a water bottling plant or agro-processing industry to the area of land just north of Nantes River, as indicated in Figure 7.19. Development permission for such enterprises should not be permitted if the impact on surrounding residential areas is likely to be significant in terms of noise, odour and other disturbance.

Policy LAP9.9 - Land is allocated for light scale industry for sand-based value adding products and agro-processing in Happy Hill and Friths as indicated in Figure 7.19. Permission for such enterprises will be guided by policies in *Section 6.3.11*.

Policy LAP9.10 - Salem Primary School is to continue to provide a suitable location for community activities and meetings. Consideration should be given to providing community IT facilities in one of the empty classrooms. Once the school is reopened for pupils, an alternative community centre is to be developed, if required.

Policy LAP9.11 - Protection of ghauts is to be enforced in line with **Policy E3**. The main watercourses are Runaway Ghaut, Nantes River and Doctor Ghaut.

Infrastructure and Service Proposals

- There is a need to preserve or enhance the open space and public venue in the village centre, needed for religious events or national celebrations
- The centre of Salem needs some regeneration work to make the area attractive for business and residents.
- Access to existing and potential farming areas is limited. There are many areas that could be farmed, especially south east of the LAP area and access roads and water infrastructure are to be implemented.
- Underground cables are preferable to mitigate the corrosive effects of ash fall and should be implemented as new infrastructure is installed.

Salem LAP

- The MVO bypass road is to be developed as a secondary route of access and egress from the MVO facility and helipad.
- Upgrades of access roads to Hope as marked on Figure 6.5 and discussed in the '*Infrastructure Plan 2012-2022*'.

7.12 Old Towne, Isles Bay and the Belham Valley Local Area Plan

7.12.1 The Development Area and Existing Conditions

The Old Towne, Isles Bay and Belham Valley areas are the most southern residential areas of north Montserrat and form a significant catchment to the village centre of Salem. Along with Woodlands and Olveston, they form the Beachettes area which is a unique asset to Montserrat. The Local Area comprises a large area of 617 acres, of which in 2011 the Belham Valley floor comprises close to 130 acres from the shore line to the Zone B/C boundary. While generally in Hazard Zone B (2011) the area remains at risk from any future volcanic activity with the possibility of further changes to landscape and the evacuation of residents when volcanic activity is at Hazard Level 4 or 5.

Land Use and Social Infrastructure

Existing land use is illustrated in Figure 7.20. The area is well established as low-density residential use with villas often set in well maintained gardens or yards. The origins of this land use go back to the 1960s when the Montserrat Company bought the entire area and sold plots of land to be developed as villa housing in close proximity to a golf course in the Belham Valley. The objective was to contribute to Montserrat's economy via significant villa-based tourism. Several ghauts of visual and ecological importance run through the Local Area. Today these villas are owned by a mixture of Montserratians and expatriates. The area comprises an important land use for Montserrat's economy. Villa construction, upgrades and maintenance employ a wide range of people. Many villas are also rented to tourists, providing an attractive high-end destination for holiday makers. The LAP area also includes some guesthouses.

Land use is restricted by covenants that property owners sign as part of the terms of their property deeds. These restrict the size and type of development permitted on residential sub-divisions, set out guidelines on how a property should be maintained visually and also prevent most types of commercial activity taking place on a property. Small commercial enterprises, such as local shops and small restaurants, are generally accepted as they add value to the community.

During the period of volcanic activity since 1995, the Belham Valley has changed dramatically. Pyroclastic flows in the upper parts of the valley and mud flows and lahars down the entire course of the valley have resulted in a huge amount of

volcanic material including sand, rock and pumice being deposited. The golf course no longer exists. The volcano currently (January 2012) remains in a state of "pause" since February 2010, but the MVO warns that the Hazard Level could be increased at any time - and possibly at very short notice.

A major pyroclastic flow in February 2010 closed the sand-mining operations in the Trants area and these deposits remain too hot for mineral extraction. Shortly thereafter, the Hazard Level was reduced from 4 to 3 and this has permitted sand-mining in the Belham Valley area. The Belham Valley currently offers the only opportunity for sand-mining and Government is currently taking steps to improve the regulation and environmental mitigation measures of these operations.

Lime Kiln Beach, Old Road Bay Beach and Isles Bay Beach are located in this area and constitute an important recreational and social function.

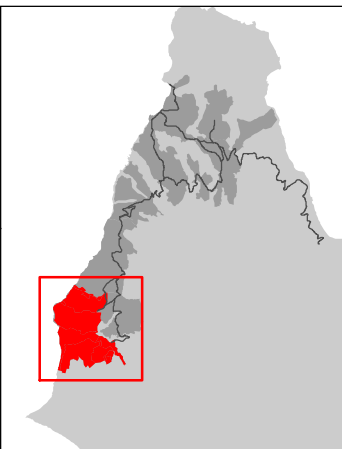
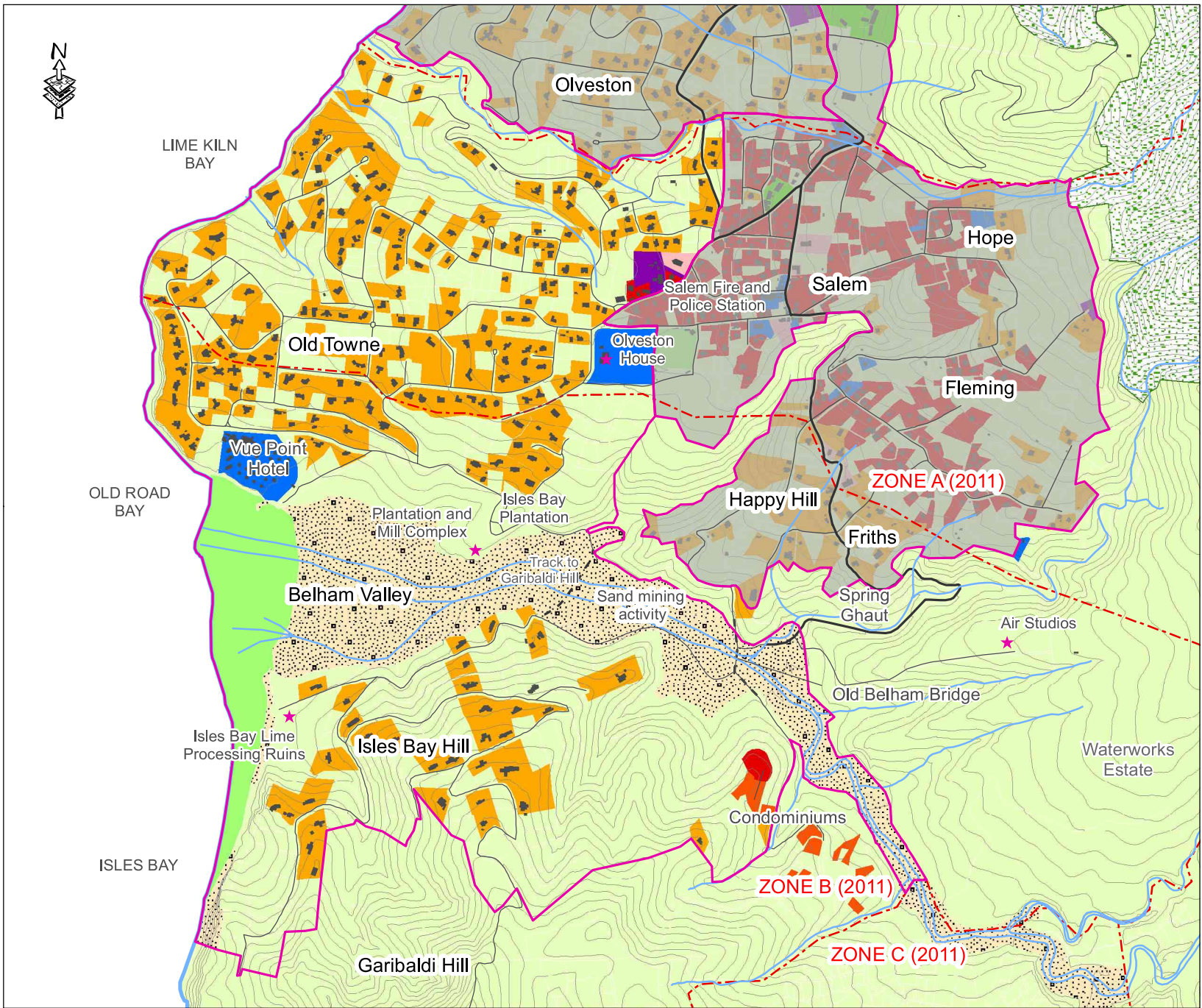
Infrastructure and Services

The area was developed from the 1960s up to commencement of volcanic activity in the mid-1990s with a network of access roads in proportion to the scale of development. This has provided a pleasant and tranquil system of roads throughout the area. The PWD is officially responsible for maintaining the public roads, but its limited resources have to be carefully prioritised and this has left the areas at highest risk of volcano activity unattended for many years. The area is fully covered by water, power and telecommunications networks. However, the areas of Old Towne and Isles Bay experience some power outages.

Heritage and Environmental Features

The Local Area covers a number of very distinct land-use areas, each with quite unique characteristics. The large vegetation covered garden spaces of Old Towne and Isles Bay Hill have altered the natural distribution of plant species, providing a diverse habitat which has encouraged a range of bird types into the area. The riparian strips of the ghauts which traverse the Local Area provide their own unique and important environment and visual backdrop.

Towards the eastern limit of the Local Area, the forest has been categorised as "dry" and is dominated by Spanish Oak, Black Birch and Black Berry. The area around Spring Ghaut (Doctor Woods Road) is the sole remaining location in the Belham Valley area where the rare and endangered Montserrat orchid (*Epidendrum montserratense*) is found on old mango trees, other locations in the valley having been lost through volcanic action.



Scale 1:14,000
 0 75 150 300Meters

Legend

- ★ Heritage Sites
- 2012 - 2022 LAP Boundaries
- Rivers and Ghauts
- Main Roads
- Minor Roads
- - - Hazard Zones (2011)

Existing Land Use

- Res High Density
- Res Medium Density
- Res Low Density
- Commercial
- Government
- Education
- CRS
- Religious
- Protected Forest

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 PHYSICAL DEVELOPMENT PLAN
 FOR NORTH MONTSERAT
 2012-2022

Old Towne, Isles Bay and the Belham Valley
 Existing Situation (2011)

January 2012

Figure 7.20

The Belham Valley floor has been completely altered by volcanic activity, associated flood events and sand mining activity. The eastern extent of the LAP valley area, above the access track to Garibaldi Hill is essentially devoid of vegetation. To the west of this access track the valley floor widens significantly and the shrubby vegetative cover is fairly dense, except in those areas which are active flow channels.

The mouth of the Belham Valley, with its brackish water lagoons, is an important area for wading birds, especially migratory birds which visit for feeding and resting from September through to early March. Towards the beach area at Isles Bay, a mosaic of dense Prosopis/Mimosa/Acacia scrub. This vegetation is of particular importance for Hawksbill turtles nesting habitat, and represents the most extensive area for this type of habitat in the whole of Montserrat. Also an important beach for nesting turtles the sand and scrub at Lime Kiln Bay.

Throughout the LAP area there are signposts to its history as a major plantation area and specifically lime processing. Notable heritage sites include Olveston House and Olveston House Airstrip where Leewards Island Air Transport (LIAT) was founded, the remains of a plantation and mill complex in Old Road Bay and the remains of a lime processing facility at Isles Bay. See Appendix F(1) for a description of these sites

In addition to matters relating to disaster risk, key issues affecting this LAP include the proliferation of loose and feral livestock which graze indiscriminately, poor waste management practices which encourage rats and other vermin and the dumping of major items, including scrap metal. Residents in this LAP area also have to endure the negative effects of sandmining in the Belham Valley. This will continue to be the case unless properly managed.

Disaster Risk

Old Towne, Isles Bay and the Belham Valley remain the most vulnerable of all north Montserrat settlements to further volcanic activity. The risk of catastrophic damage from pyroclastic flow or falling volcanic debris is considered by the MVO to be currently very low, but residents are more likely than other settlements to be inconvenienced by ashfalls. The MVO Hazard Level system states that Zone B is subject to 'controlled access' for Hazard Levels 4 and 5. It is important to note the most up to date Hazard Level, available at the MVO website (www.mvo.ms). The area is also at risk from hurricane and seismic events. The table below indicates local vulnerability to disaster.

Hazard	Vulnerability	Specific areas
Volcanic	medium	Zones A and B subject to controlled access at Hazard Levels 4 and 5
Seismic	medium	General
Hurricane / high wind	medium	Particularly tops of ridges and funnelled slopes facing east. The Belham Valley area is often subjected to high winds
Flooding	low	Run-off on slopes and where ghauts cross roads
Storm surge / tsunami	low	Limited areas close to sea level
Land slide / rockfall	medium	Lahars are a perennial risk along the Belham Valley

7.12.3 Development Opportunities and Constraints

Opportunities:

- Approximately 90 acres are available for development, not taking into account land ownership issues, based on the Developable Land evaluation in Section 5.
- A large number of empty houses and vacant lots are available to be renovated or developed with attractive situations and views.
- The area is suitable for holiday rental villas and guesthouses, subject to restrictive covenants.

Constraints:

- While there is currently unrestricted access to Zone B (at January 2012) it remains an area subject to rapid change in risk level, depending on the volcanic activity. The areas within Zone B are subject to controlled access when the MVO Hazard Level is at 4 or 5.
- The Belham Valley is subject to lahars (mud flows) during heavy rainfall and is an unstable and highly dynamic environment. The upper Belham valley may be subject to further pyroclastic flows. It is important to consider up to date information available at the MVO website (www.mvo.ms).
- There are a number of ghauts running through the area. These can be a cause of localised flooding. They are to be protected for their ecological and landscape value, and to mitigate the risks of flooding.
- A significant constraint to development is the reduced access to finance and insurance as bank and insurance companies provide very limited services to areas south of the Nantes River. Furthermore, the reluctance

of GOM and DFID to fund infrastructure in this area is constraining development and discouraging people from investing in the area. Government is working to address these constraints via the possible establishment of a specific Montserrat volcano insurance solution

- Road condition and capacity hinders access to many local areas, particularly to Isles Bay and Garibaldi Hill as the Belham valley is a highly changeable obstacle.
- All development is subject to restrictive covenants.

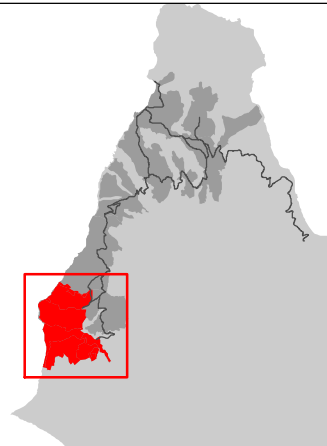
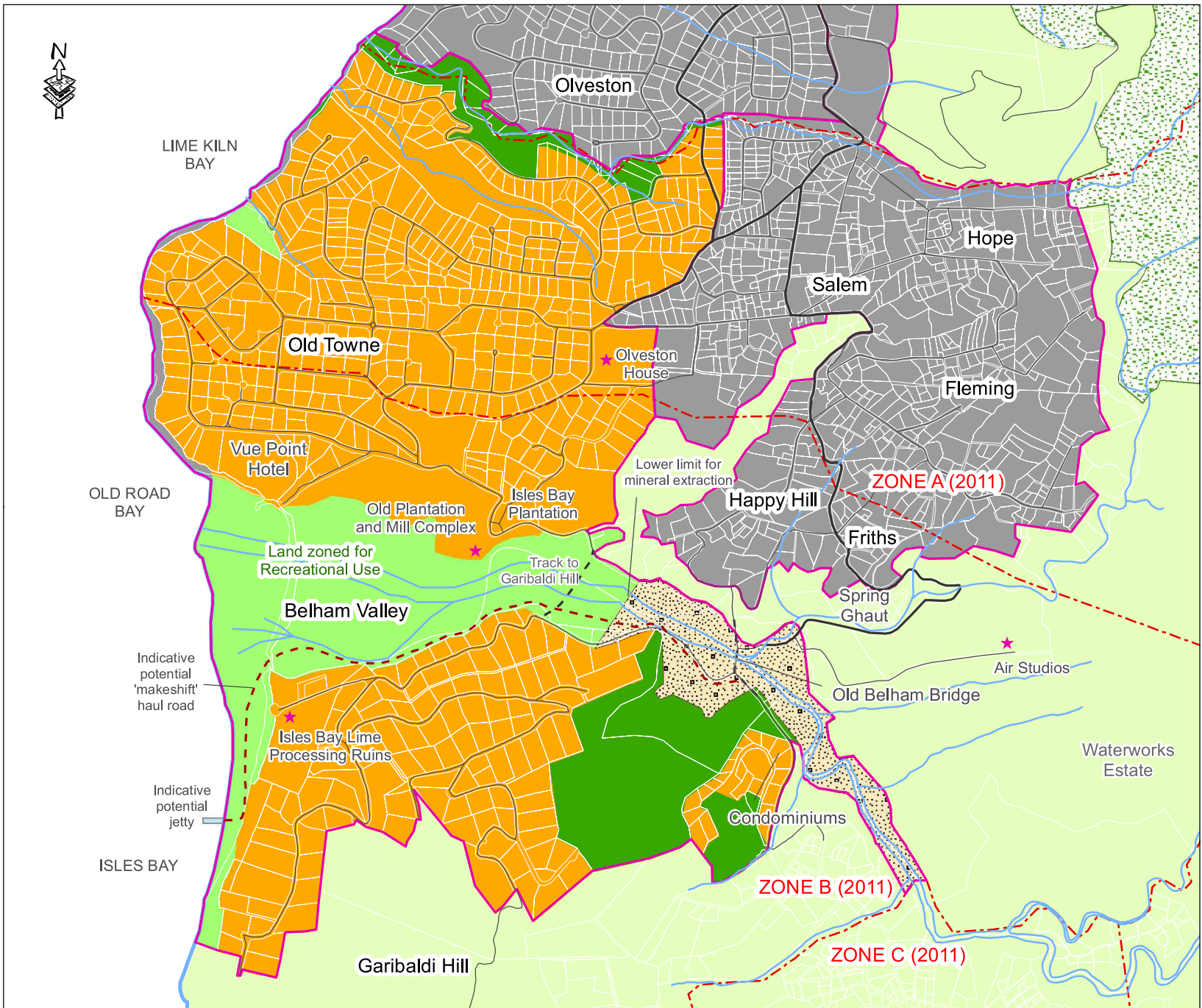
7.12.4 Policies and Proposals

General Strategy

It is important that this area is well managed to allow residential areas to recover and increase their significant contributions to the island's economy. It is expected that the existing residential land use will continue to grow, via infilling of the areas, during the plan period to 2022. The Vue Pointe Hotel will be encouraged to reopen and will provide a much needed economic boost to the area and the island. It is not expected that residential areas east of Garibaldi Hill in Zone B or beyond the access gate to Zone C, will become inhabitable within the plan period.

Sand mining will be permitted to continue further up the Belham valley in a well-planned and regulated manner such that adverse impacts on neighbouring residential areas are minimised. The principal mitigation measure to minimise negative impacts from sand mining is to separate, as far as practicable, the mining activities from the residential areas and tourist accommodation. A lower mining limit has thus been designated by Government and will be enforced. This solution will provide additional revenue streams to Montserrat's economy while enabling the island to benefit from increased residential developments, including the Isles Bay Plantation, Isles Bay Hill and other areas in the proximity of the Belham valley.

An important consideration is from which point sand will be exported from Montserrat. In 2012 several potential options are being evaluated and the option within this Local Area has been indicated in Figure 7.21.



Scale 1:14,000
 0 100 200 400 Meters

Legend

- Main Roads
- Minor Roads
- Rivers and Ghauts
- 2012 - 2022 LAP Boundaries
- ★ Heritage Sites
- - - Indicative Potential Haul Road
- - - Temporary tracks
- - - Hazard Zones (2011)

Land Use Zones

- Orange Predominantly Residential
- Light Green Recreational
- Dark Green Conservation Area
- Stippled Sand mining
- Green with dots Protected Forest

GOVERNMENT OF MONTSERAT
 Ministry of Agriculture, Land, Housing and the Environment
 PHYSICAL PLANNING UNIT
 in association with
 IMC WORLDWIDE LTD.
 PHYSICAL DEVELOPMENT PLAN
 FOR NORTH MONTSERAT
 2012-2022

Old Towne, Isles Bay and the Belham Valley Land Use Zones

January 2012 **Figure 7.21**

Policies

Policy LAP10.1 - Residential development will continue to be encouraged throughout the areas of residential sub-divisions, as indicated in Figure 7.21.

Policy LAP10.2 - Residential and commercial accommodation, including the Vue Pointe Hotel and other accommodation establishments are encouraged to develop within the LAP area. All applications will be considered on a case by case basis and will include public consultation where they represent a breach of the covenants.

Policy LAP10.3 - Applications for commercial activities, such as restaurants and small food-stores, will be assessed on a case by case basis and considered favourably when they add social or community value to the area. [**Policy H3**]

Policy LAP10.4 - Land is allocated for recreational use between the shore line and the lower mining limit, as illustrated in Figure 7.21.

Policy LAP10.5 - Land is designated for general mineral extraction, including sand mining in the upper Belham valley, as illustrated in Figure 7.21. Mineral extraction, processing or stockpiling is not permitted downstream (west) of the lower mining limit.

Policy LAP10.6 - Efforts will be made to minimise the effects of the export of material from sand mining in the Belham valley, taking into consideration the nature of local guesthouse/hotel and restaurant businesses, residential accommodation and other approved land uses. To this end, all sand mining activities are subject to the provisions of the *Health, Safety and Environmental Management Guidelines for Sand Mining in Montserrat: An Operational Plan for Reducing Environmental and Social Impacts* (2012).

Policy LAP10.7 – There is a presumption against development in the conservation areas identified in Figure 7.21. These green buffer zones play an important ecological and flood mitigation role, and act as an attractive visual backdrop to many dwellings.

Policy LAP10.7 – Beach areas and their coastal zones are protected under the provision of **Policy EC10** (the provisions of the international Convention on the Protection of Migratory Species (CMS). The beach and coastal setback (as defined in the PDP *Development Standards*) provide valuable habitat for endangered nesting turtles, while the brackish waters of the lower Belham Valley provide habitat for many important species of migratory wading birds.

Infrastructure and Service Proposals

- Public roads will continue to be maintained by the PWD and road side vegetation trimmed appropriately.
- The water boreholes in the Belham Valley belonging to MUL will be adequately protected from sand mining and other activities.
- Utility services will be placed underground as far as possible
- Consideration will be given to communal wastewater systems depending on the size and density of communities and other relevant factors
- Any street lighting projects must include public consultation.

