

Shoreline Management Plan

Havre des Pas Coastal Flood Alleviation Scheme Frequently Asked Questions



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An island ready for, and resilient to, coastal flooding and climate change – today, tomorrow and the next 100 years...



Havre des Pas Coastal Flood Alleviation Scheme

Frequently Asked Questions (FAQs)

Shoreline Management Plan (SMP) 2020

1. What is the SMP?

The Shoreline Management Plan (SMP) is a long-term strategy developed to address coastal flooding and erosion risks around Jersey. It sets out policies and actions for the next 100 years to help manage and adapt the island's coastline against future challenges.

2. Why was the SMP created?

It was developed in response to rising sea levels, more frequent extreme weather, and increasing coastal vulnerability. The SMP guides sustainable decision-making to protect communities, infrastructure, and natural habitats from worsening coastal threats.

3. Which organisations led the SMP project?

The SMP was prepared by the Government of Jersey in partnership with AECOM, a global engineering consultancy. The methodology and findings were independently reviewed by the National Oceanography Centre to ensure scientific robustness.

4. When was the SMP published?

The final SMP report was released on 23 January 2020. It lays out current conditions, future projections, risk assessments, and clear policy directions for future coastal resilience.

5. How often will the SMP be reviewed?

Reviews are scheduled every 10 years or after major coastal events. The first statutory update is due in 2030, ensuring that the SMP remains aligned with changing climate data and coastal conditions.

6. What timeframe does the SMP cover?

The SMP sets out coastal policy across three distinct time periods or "epochs": 2020–2040 (short term), 2040–2070 (medium term), and 2070–2120 (long term). This structure supports phased planning and intervention.

7. How is Jersey's coastline divided in the SMP?

The coastline is divided into six Coastal Management Areas (CMAs), which are further subdivided into 36 Coastal Management Units (CMUs). This allows tailored policies based on local characteristics and risks.

8. What are the four management policy options?

These are:

- No Active Intervention (letting nature take its course),
- Maintain the Defence Line (upkeep of existing sea defences),
- Adaptive Management (enhancing defences over time), and
- Advance the Line (building new defences further out to sea).



9. What does "No Active Intervention" mean?

This approach lets natural coastal processes continue in areas without significant infrastructure or protection, minimising intervention where loss is acceptable or even beneficial.

10. What does "Maintain the Defence Line" involve?

This strategy focuses on maintaining and repairing existing coastal defences without major alterations. It ensures current protection standards continue but does not adapt for future sea-level rise.

11. What does "Adaptive Management" entail?

Adaptive Management is a flexible approach where sea defences are upgraded or modified as future sea-level and climate data evolve. This strategy accommodates change and reduces unnecessary upfront investment.

12. What does "Advance the Line" involve?

Advancing the Line means constructing new, often seaward, defences, which can include public spaces like promenades. It reduces pressure on existing defences and improves long-term protection.

13. Why are policies assigned per Coastal Management Unit?

Each Coastal Management Unit (CMU) has unique characteristics—geometry, land use, flood risk—so individualised policy ensures local needs and priorities are addressed effectively.

14. Why structure the plan into epochs?

Epochs enable phased investment and decision-making. They create a timeline aligned with updated scientific insights and allow policy evolution alongside changing coastal triggers.

15. What sea-level rise projections are used?

Projections anticipate a rise from around 3 mm per year currently to about 9 mm per year by 2070. Overall, this could result in a cumulative sea-level rise of approximately 0.82 m by 2120.

16. What is the "still water level"?

"Still water level" refers to the baseline sea level considering tides and storm surges but excluding wave action. It's an essential metric for calculating defence heights.

17. Which areas are identified as high-risk?

Zones such as Havre des Pas and St Aubin's Bay are prioritised as having the highest flood and erosion risk, due to their low-lying geography and infrastructure concentration.

18. Why is coastal protection necessary?

Coastal defences guard against rising seas, stronger storms, and erosion. Without intervention, Jersey's communities, heritage sites, and economy face increasing damage and collapse.

19. How was public input obtained?

Between July and September 2019, the SMP engaged the public through surveys,



roadshows, and stakeholder workshops. Over 400 participants helped shape policy direction.

20. How did the public respond?

Around 85% of respondents broadly supported the draft SMP, particularly its recognition of risk and phased management strategies.

21. Is the SMP relevant to coastal planning applications?

Yes, the SMP is a "material consideration" in planning decisions, meaning it directly influences approvals for coastal and near-coast development.

22. How does the SMP link to other policies?

It aligns with Jersey's Island Plan, Integrated Coastal Zone Management, Future Jersey objectives, and wider climate action frameworks, ensuring cohesive policy integration.

23. What coastal processes are analyzed?

The SMP models wave action, storm surges, sediment movement, and long-term erosion, capturing complex interactions that influence defence design.

24. Which modelling tools are used?

The coastal flood models used software like Tuflow for detailed mapping and risk forecasting, grounded in scientific data and climate projections.

25. How are environmental impacts assessed?

The plan includes evaluation of 17 SSIs (Sites of Special Interest), Ramsar wetlands, and shoreline ecosystems to avoid or mitigate ecological damage during defence upgrades.

26. Are heritage sites considered?

Historical structures like anti-tank sea walls and defences are recognized and preserved wherever feasible within planning and design protocols.

27. How does the SMP define sustainability?

Following the Brundtland definition, the SMP supports development that meets current needs without compromising the ability of future generations to meet theirs, balancing environment, society, and economy.

28. What supporting evidence accompanies the SMP?

Technical appendices include economics, GIS mapping, engineering calculations, hydraulic modelling, and communication outputs.

Havre des Pas 2024 Engagement Workshops

29. Why is Havre des Pas a priority?

Havre des Pas falls under CMU-1.8, the SMP's highest-risk unit. The shoreline here requires urgent and substantial defence to secure people, properties, and critical infrastructure.

30. How many workshops took place?

A series of six community engagement workshops were held across June and July 2024 to obtain local insights for the early-stage design process.



31. Where were these held?

The workshops took place at Société Jersiaise on Pier Road, each lasting roughly two to three hours to allow in-depth discussion.

32. Who joined the sessions?

Islanders attended each workshop, including local residents, businesses, coastal user groups, heritage groups, and environmental stakeholders.

33. What activities were included?

Sessions involved presentations on coastal risk, group discussions to identify site values, mapping exercises, and brainstorming of future defence options.

34. What guiding questions were asked?

Participants addressed questions about what they value in the area, their main flooding concerns, design priorities, and how public space should look and feel.

35. What is the primary project goal?

To design coastal defences that reduce flood risk to a 1-in-200-year standard, taking into account climate change projections out to 2120, with adaptable and community-friendly outcomes.

36. Is the project designed to last beyond 2120?

While the plan focuses on 2120, it is built with adaptive measures to accommodate future extensions or upgrades as sea levels rise further.

37. How was feedback captured?

Feedback was recorded in detailed engagement reports that summarise themes, suggestions, concerns, and ideas for the design team to consider.

38. How supportive was the community?

Participant feedback was very positive and supportive of the scheme, full of constructive suggestions.

39. What concerns were frequently raised?

Concerns centred on privacy in gardens and existing coastal properties, visual impact of new walls, public access changes, and potential disruption during construction.

40. What might happen without intervention?

Inaction could lead to c.£1.8 billion in damages over time, with recovery periods extending up to two years after major flooding events.

41. How many homes are currently at risk?

Approximately 350 properties are at risk today, but numbers could reach 1,000 by 2120 if defences are not improved.

42. What is the current sea-level rise rate?

Currently, sea-level rise is about 6 mm per year around Jersey, with projections suggesting a rise to 9 mm/year by 2070.



43. When will construction begin?

With final design and approvals complete, construction is expected to start around 2029 and take approximately five years.

44. How will construction be staged?

Work will be phased to minimise impact—some shoreline sections will be built from September to May, outside of peak tourism season, for example the central Havre des Pas section near the Lido.

45. Will the promenade be enhanced?

Yes, the plan includes wide promenades, improved public spaces, cycle paths, and enhanced accessibility similar to existing waterfronts.

Coastal Design Terms

46. What is "still water level"?

This term refers to the baseline sea level calculated from tides and storm surge, but excluding wave action. It forms the basis for defence design and helps determine how high walls must be.

47. What is wave overtopping?

Overtopping occurs when large waves break over the top of a sea wall during storms. Resistance to overtopping is key to protecting properties and preventing flood ingress.

48. What does "crest level" refer to?

The crest level is the height of the top edge of a sea defence structure. It must be designed high enough to withstand projected water levels, including surge and wave effects.

49. What is a "toe structure"?

A toe structure is built at the base of a wall to reinforce the foundation and prevent wave undercutting or scour, which can weaken the defence over time.

50. What does SoP (Standard of Protection) mean?

SoP refers to the statistical likelihood that a defence can withstand flooding—e.g., a 1-in-200-year event corresponds to a 0.5% annual probability.

51. What is "adaptive design"?

Adaptive design incorporates features that allow future height increases or strengthening, without needing to rebuild the entire structure.

52. What is a "setback defence"?

A setback defence is an additional line placed inland from the primary wall, acting as a backup barrier in case the front defence is overtopped.

53. What is "engineering feasibility"?

The feasibility phase explores whether the proposed design is practical, affordable, compliant, and structurally sound before detailed planning begins.



54. What is "concept design"?

Concept design builds on feasibility by creating preliminary visuals, layouts, and options based on stakeholder feedback and technical constraints.

55. What is "technical design"?

Technical design is the final, detailed design ready for construction, including precise construction drawings, specifications, and material selections.

Why Coastal Protection Matters

56. Why is sea level rising?

Sea levels are rising due to global warming, which causes oceans to expand and ice on land to melt. Both contribute to more water entering the oceans.

57. How much will the sea rise by 2120?

Projected rise by 2120 is approximately 0.82 m under current trends. This gradual but significant increase increases flood risk and challenges current defences.

58. Why is erosion becoming more severe?

Stronger storms and rising tides create more powerful wave action and faster erosion, threatening beaches, cliffs, and shoreline infrastructure.

59. What happens without coastal defences?

Without defences, coastlines, homes, roads, habitats, and businesses are exposed to repeated flooding, erosion, economic loss, and reduced resilience.

60. What does a "1-in-200-year" event mean?

This describes the statistical chance of a flood event happening—there is a 0.5% chance in any given year that such an extreme flood will occur.

61. Why use a 200-year protection standard?

It's a balance of safety, cost, and practicability—providing robust protection without excessive expense, while safeguarding vital assets.

62. Are severe storms becoming more frequent?

Yes—climate models show increasing frequency of extreme weather, which challenges traditional once-in-a-generation flood defences.

63. Why plan ahead to 2120?

Planning to 2120 provides a long-term view that anticipates future climate change and ensures defence strategies remain relevant and effective over time.

64. Can defences be upgraded in the future?

Yes—many schemes, particularly those using adaptive designs, allow for height increases or additional reinforcements when needed.

65. Why involve local communities in design?

Community input ensures defences work for local needs, enhance public space, preserve community character, and gain local support.



67. Will beach levels change with new defences?

Potentially – however whilst new defences may alter sediment movement and beach shape. The coastal models assess these changes to minimise unintended impacts.

68. Could ecology be affected?

Potential impacts on sensitive coastal habitats are addressed through design adjustments and environmental mitigation plans.

69. How do planners assess economic effects?

Cost-benefit analyses weighing upfront investment against avoided damage inform decisions and priorities.

70. How is funding prioritised?

Project funding is allocated through government planning frameworks based on risk, social need, and strategic benefit.

71. Are emergency plans integrated?

Yes—coastal flood strategies align with emergency response and evacuation planning to ensure comprehensive resilience.

72. Who oversees implementation?

Jersey's Coastal Engineering team within the Infrastructure & Environment Department manage project delivery.

73. Are natural defences an option?

Soft engineering, like beach nourishment and dune reinforcement, is considered where feasible and appropriate. It is not considered to be appropriate for Havre des Pas CMU.

74. How will maintenance be managed?

Each defence unit will have planned maintenance schedules and funding identified to ensure long-term performance.

75. How can the public stay informed?

Regular updates are provided via gov.je, community events, newsletters, and project documentation.

76. Will there be further workshops?

Yes—a further rounds of engagement are planned during the concept design, technical design and throughout the project delivery.

77. How can I get involved?

You can complete surveys, attend sessions, submit comments via email (<u>coastal@gov.je</u>), or request updates directly.

78. Will design visuals be available?

Yes—concept diagrams, 3D visuals, and public realm layouts will be published for community feedback as these are developed.

79. Is funding confirmed for Havre des Pas?

The preliminary Government Plan includes funding for design and early works, subject to full design sign-off.



80. How might tourism be affected?

The design aims to enhance visitor experience with promenades, seating, interpretive signage, and better accessibility. Construction is scheduled to avoid peak summer, and visual improvements are designed to enhance tourism long-term.

81. Are cycle paths included?

New, separate cycle lanes are included alongside widened promenades to enhance accessibility and safety.

82. Will there be green space improvements?

Yes—plan includes new gardens, landscaped zones, and natural elements to enhance public enjoyment.

83. Why have multiple planning epochs?

Epochs layer delivery over time, allowing for periodic reassessment and matching investment to evolving risk.

Coastal Terms & Concepts

- 84. **Crest level** This is the top edge of a sea defence. Its height is calculated to withstand predicted water levels and wave overtopping.
- 85. **Toe protection** Structures at the base of a defence wall that protect against wave undercutting and scour which could weaken foundations over time.
- 86. **Setback defence** A secondary wall located landward of the main defence line, adding redundancy and extra security in case of overtopping.
- 87. **Wave overtopping** This occurs when waves exceed the height of a wall and spill over into protected areas. Defence designs aim to minimise overtopping.
- 88. **Still water level** The steady sea level considering tides and surge, used as a baseline for defence height calculations.
- 89. **Design life** The period (typically 100 years) a coastal defence is intended to perform effectively before major upgrading is required.
- 90. Adaptive design Engineering that allows future height or strength enhancements without a full rebuild of the structure.
- 91. **Pluvial flooding** Flooding caused by heavy rainfall that exceeds drainage capacity, possibly exacerbated by overtopping or debris blockage.
- 92. **Ramsar site** A wetland recognized internationally for its importance, often requiring extra environmental considerations during construction.
- 93. **GIS (Geographic Information System)** A software tool that integrates flood models, coastal geomorphology, ecology, and infrastructure to support informed planning.



If you have any more questions that are not addressed above then please feel free to contact us:

- By email: <u>coastal@gov.je</u>
- **By post:** Havre des Pas Coastal Flood Alleviation Scheme Infrastructure & Environment – Coastal Engineering La Collette Depot, La Route du Veulle St Helier, JE2 3NX

If you would like to be added to our electronic mailing list to be kept up to date on the project then please email us with your contact details. If at any time you no longer wish to receive email updates then all you need to do is let us know and we will remove your details from the lists.

How We Use Your Data

To find out how we protect your personal information, read the **Transport & Highways Privacy Notice** here:

www.gov.je/highwayprivacy

Thank you!

Coastal Engineering Team