

# 1A

Erosion

# Ōtaki Beach

Northern Adaptation Area

**Takutai  
Kāpiti.**

## Pathway 5

MCDA  
Score **87**

MCDA  
Ranking **1**

### Short term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Medium term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Long term

Retreat

Proactively moving people out of the way of the hazard.

Cost + Loss  
**\$17.2M**

Cost + Loss  
Ranking  
**1**

Damages  
Avoided  
**\$11.8M**

Total Pathway Cost

**\$16.7M**

Damages  
Avoided  
Ranking  
**1=**

Number of  
Properties Still  
Exposed (2130)  
**0**

## Pathway 4

MCDA  
Score **74**

MCDA  
Ranking **2**

### Short term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Medium term

Soft Engineering  
Protection  
(Renourishment)

Importing sand and distributing it on the foreshore to supply more bulk to the beach profile.

### Long term

Retreat

Proactively moving people out of the way of the hazard.

Cost + Loss  
**\$18.1M**

Cost + Loss  
Ranking  
**2**

Damages  
Avoided  
**\$11.8M**

Total Pathway Cost

**\$17.5M**

Damages  
Avoided  
Ranking  
**1=**

Number of  
Properties Still  
Exposed (2130)  
**0**

## Pathway 1

MCDA  
Score **69**

MCDA  
Ranking **3**

### Short term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Medium term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Long term

Soft Engineering  
Protection  
(Renourishment)

Importing sand and distributing it on the foreshore to supply more bulk to the beach profile.

Cost + Loss  
**\$20.6M**

Cost + Loss  
Ranking  
**3**

Damages  
Avoided  
**\$11.8M**

Total Pathway Cost

**\$20M**

Damages  
Avoided  
Ranking  
**1=**

Number of  
Properties Still  
Exposed (2130)  
**1**

# 1B

Inundation

# Ōtaki

Northern Adaptation Area

## Takutai Kāpiti.

## Pathway 3

MCDA  
Score **83**

MCDA  
Ranking **1**

### Short term

Enhance

Strengthen existing structures and infrastructure and enhance coastal wetlands.

### Medium term

Accommodate

Proactively raise floors of homes which could be flooded.

### Long term

Retreat

Proactively moving people out of the way of the hazard.

Cost + Loss  
**\$757.4M**

Cost + Loss  
Ranking

**2**

Damages  
Avoided  
**\$22.8M**

Total Pathway Cost

**\$741M**

Damages  
Avoided  
Ranking

**3**

Number of  
Buildings Still  
Exposed (2130)

**21**

## Pathway 2

MCDA  
Score **62**

MCDA  
Ranking **2=**

### Short term

Enhance

Strengthen existing structures and infrastructure and enhance coastal wetlands.

### Medium term

Additional Hard  
Protection

Installation of floodgates, pump stations and stopbanks to prevent sea water entering the settlements.

### Long term

Retreat

Proactively moving people out of the way of the hazard.

Cost + Loss  
**\$777.7M**

Cost + Loss  
Ranking

**3**

Damages  
Avoided  
**\$22.9M**

Total Pathway Cost

**\$761.4M**

Damages  
Avoided  
Ranking

**2**

Number of  
Buildings Still  
Exposed (2130)

**21**

## Pathway 1

MCDA  
Score **62**

MCDA  
Ranking **2=**

### Short term

Enhance

Strengthen existing structures and infrastructure and enhance coastal wetlands.

### Medium term

Accommodate

Proactively raise floors of homes which could be flooded.

### Long term

Additional Hard  
Protection

Installation of floodgates, pump stations and stopbanks to prevent sea water entering the settlements.

Cost + Loss  
**\$91.1M**

Cost + Loss  
Ranking

**1**

Damages  
Avoided  
**\$23.1M**

Total Pathway Cost

**\$75M**

Damages  
Avoided  
Ranking

**1**

Number of  
Buildings Still  
Exposed (2130)

**64**

# 2A

Erosion

# Te Horo Beach

Northern Adaptation Area

Takutai  
Kāpiti.

## Pathway 5

MCDA  
Score **87**

MCDA  
Ranking **1**

### Short term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Medium term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Long term

Retreat

Proactively moving people out of the way of the hazard.

Cost + Loss  
**\$18.6M**

Cost + Loss  
Ranking  
**3**

Damages  
Avoided  
**\$12.5M**

Total Pathway Cost

**\$18.6M**

Damages  
Avoided  
Ranking  
**1=**

Number of  
Properties Still  
Exposed (2130)  
**0**

## Pathway 4

MCDA  
Score **74**

MCDA  
Ranking **2**

### Short term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Medium term

Soft Engineering  
Protection  
(Renourishment)

Importing sand/gravel and distributing it on the foreshore to supply more bulk to the beach profile.

### Long term

Retreat

Proactively moving people out of the way of the hazard.

Cost + Loss  
**\$16.7M**

Cost + Loss  
Ranking  
**1**

Damages  
Avoided  
**\$12.5M**

Total Pathway Cost

**\$16.7M**

Damages  
Avoided  
Ranking  
**1=**

Number of  
Properties Still  
Exposed (2130)  
**0**

## Pathway 1

MCDA  
Score **69**

MCDA  
Ranking **3**

### Short term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Medium term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Long term

Soft Engineering  
Protection  
(Renourishment)

Importing sand/gravel and distributing it on the foreshore to supply more bulk to the beach profile.

Cost + Loss  
**\$17.7M**

Cost + Loss  
Ranking  
**2**

Damages  
Avoided  
**\$12.4M**

Total Pathway Cost

**\$17.7M**

Damages  
Avoided  
Ranking  
**3**

Number of  
Properties Still  
Exposed (2130)  
**1**

# 2B

Inundation

# Te Horo

Northern Adaptation Area

## Takutai Kāpiti.

## Pathway 3

MCDA  
Score **83**

MCDA  
Ranking **1**

### Short term

Enhance

Strengthen existing structures and infrastructure and enhance coastal wetlands.

### Medium term

Accommodate

Proactively raise floors of homes which could be flooded.

### Long term

Retreat

Proactively moving people out of the way of the hazard.

Cost + Loss

**\$84.4M**

Cost + Loss  
Ranking

**3**

Damages  
Avoided

**\$1.69M**

Damages  
Avoided  
Ranking

**3**

Number of  
Buildings Still  
Exposed (2130)

**4**

Total Pathway Cost

**\$83.8M**

## Pathway 2

MCDA  
Score **64**

MCDA  
Ranking **2=**

### Short term

Enhance

Strengthen existing structures and infrastructure and enhance coastal wetlands.

### Medium term

Additional Hard  
Protection

Installation of floodgates, pump stations and stopbanks to prevent sea water entering the settlements.

### Long term

Retreat

Proactively moving people out of the way of the hazard.

Cost + Loss

**\$86.6M**

Cost + Loss  
Ranking

**2**

Damages  
Avoided

**\$2M**

Damages  
Avoided  
Ranking

**1**

Number of  
Buildings Still  
Exposed (2130)

**4**

Total Pathway Cost

**\$86.3M**

## Pathway 1

MCDA  
Score **64**

MCDA  
Ranking **2=**

### Short term

Enhance

Strengthen existing structures and infrastructure and enhance coastal wetlands.

### Medium term

Accommodate

Proactively raise floors of homes which could be flooded.

### Long term

Additional Hard  
Protection

Installation of floodgates, pump stations and stopbanks to prevent sea water entering the settlements.

Cost + Loss

**\$21M**

Cost + Loss  
Ranking

**1**

Damages  
Avoided

**\$1.73M**

Damages  
Avoided  
Ranking

**2**

Number of  
Buildings Still  
Exposed (2130)

**8**

Total Pathway Cost

**\$20.4M**

# 3A

Erosion

# Peka Peka Beach

Northern Adaptation Area

**Takutai  
Kāpiti.**

## Pathway 5

MCDA  
Score **87**

MCDA  
Ranking **1**

**Short term**  
**Enhance**

Increase dune resilience by foreshore and backshore planting and education and emergency management.

**Medium term**  
**Enhance**

Increase dune resilience by foreshore and backshore planting and education and emergency management.

**Long term**  
**Retreat**

Proactively moving people out of the way of the hazard.

Cost + Loss  
**\$73.6M**

Cost + Loss  
Ranking  
**3**

Damages  
Avoided  
**\$3M**

Total Pathway Cost  
**\$73.6M**

Damages  
Avoided  
Ranking  
**1=**

Number of  
Properties Still  
Exposed (2130)  
**0**

## Pathway 4

MCDA  
Score **74**

MCDA  
Ranking **2**

**Short term**  
**Enhance**

Increase dune resilience by foreshore and backshore planting and education and emergency management.

**Medium term**  
**Soft Engineering  
Protection  
(Renourishment)**

Importing sand and distributing it on the foreshore to supply more bulk to the beach profile.

**Long term**  
**Retreat**

Proactively moving people out of the way of the hazard.

Cost + Loss  
**\$67.3M**

Cost + Loss  
Ranking  
**2**

Damages  
Avoided  
**\$3M**

Total Pathway Cost  
**\$67.3M**

Damages  
Avoided  
Ranking  
**1=**

Number of  
Properties Still  
Exposed (2130)  
**0**

## Pathway 1

MCDA  
Score **69**

MCDA  
Ranking **3**

**Short term**  
**Enhance**

Increase dune resilience by foreshore and backshore planting and education and emergency management.

**Medium term**  
**Enhance**

Increase dune resilience by foreshore and backshore planting and education and emergency management.

**Long term**  
**Soft Engineering  
Protection  
(Renourishment)**

Importing sand and distributing it on the foreshore to supply more bulk to the beach profile.

Cost + Loss  
**\$20.1M**

Cost + Loss  
Ranking  
**1**

Damages  
Avoided  
**\$2.2M**

Total Pathway Cost  
**\$19.2M**

Damages  
Avoided  
Ranking  
**3**

Number of  
Properties Still  
Exposed (2130)  
**15**

# 3B

Inundation

# Peka Peka

Northern Adaptation Area

## Takutai Kāpiti.

## Pathway 3

MCDA Score **85**

MCDA Ranking **1**

### Short term

Enhance

Strengthen existing structures and infrastructure and enhance coastal wetlands.

### Medium term

Accommodate

Proactively raise floors of homes which could be flooded.

### Long term

Retreat

Proactively moving people out of the way of the hazard.

Cost + Loss

**\$90.5M**

Cost + Loss Ranking

**3**

Damages Avoided

**\$0.48M**

Damages Avoided Ranking

**2=**

Number of Buildings Still Exposed (2130)

**10**

Total Pathway Cost

**\$90.4M**

## Pathway 2

MCDA Score **66**

MCDA Ranking **2**

### Short term

Enhance

Strengthen existing structures and infrastructure and enhance coastal wetlands.

### Medium term

Additional Hard Protection

Installation of floodgates, pump stations and stopbanks to prevent sea water entering the settlements.

### Long term

Retreat

Proactively moving people out of the way of the hazard.

Cost + Loss

**\$84.9M**

Cost + Loss Ranking

**2**

Damages Avoided

**\$0.48M**

Damages Avoided Ranking

**2=**

Number of Buildings Still Exposed (2130)

**10**

Total Pathway Cost

**\$84.7M**

## Pathway 1

MCDA Score **64**

MCDA Ranking **3**

### Short term

Enhance

Strengthen existing structures and infrastructure and enhance coastal wetlands.

### Medium term

Accommodate

Proactively raise floors of homes which could be flooded.

### Long term

Additional Hard Protection

Installation of floodgates, pump stations and stopbanks to prevent sea water entering the settlements.

Cost + Loss

**\$10.1M**

Cost + Loss Ranking

**1**

Damages Avoided

**\$0.5M**

Damages Avoided Ranking

**1**

Number of Buildings Still Exposed (2130)

**8**

Total Pathway Cost

**\$9.9M**

# 4A

Erosion

# Northern Rural

Northern Adaptation Area

**Takutai  
Kāpiti.**

## Pathway 1

MCDA  
Score **72**

MCDA  
Ranking **1**

### Short term

Status Quo

No additional changes to current management of erosion hazard.

### Medium term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Long term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

Cost + Loss  
**\$24.2M**

Cost + Loss  
Ranking  
**1**

Damages  
Avoided  
**\$19.8M**

Total Pathway Cost

**\$20M**

Damages  
Avoided  
Ranking  
**1=**

Number of  
Properties Still  
Exposed (2130)  
**2**

## Pathway 3

MCDA  
Score **60**

MCDA  
Ranking **2**

### Short term

Status Quo

No additional changes to current management of erosion hazard.

### Medium term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Long term

Soft Engineering  
Protection

Beach renourishment and beach scraping.

Cost + Loss  
**\$24.7M**

Cost + Loss  
Ranking  
**2**

Damages  
Avoided  
**\$19.8M**

Total Pathway Cost

**\$20.5M**

Damages  
Avoided  
Ranking  
**1=**

Number of  
Properties Still  
Exposed (2130)  
**2**

## Pathway 2

MCDA  
Score **50**

MCDA  
Ranking **3**

### Short term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Medium term

Enhance

Increase dune resilience by foreshore and backshore planting and education and emergency management.

### Long term

Soft Engineering  
Protection

Beach renourishment and beach scraping.

Cost + Loss  
**\$30.9M**

Cost + Loss  
Ranking  
**3**

Damages  
Avoided  
**\$19.8M**

Total Pathway Cost

**\$26.7M**

Damages  
Avoided  
Ranking  
**1=**

Number of  
Properties Still  
Exposed (2130)  
**2**

# 4B

Inundation

# Northern Rural

Northern Adaptation Area

**Takutai  
Kāpiti.**

## Pathway 1

MCDA  
Score

**69**

MCDA  
Ranking

**1**

### Short term

**Status Quo**

No additional changes to current management of the inundation hazard.

### Medium term

**Enhance**

Strengthen existing stopbanks and structures and enhance coastal wetlands.

### Long term

**Accommodate**

Proactively raise floors of homes which could be flooded.

Cost + Loss

**\$9.2M**

Cost + Loss  
Ranking

**1**

Damages  
Avoided

**\$0.2M**

Damages  
Avoided  
Ranking

**2**

Number of  
Buildings Still  
Exposed (2130)

**3**

Total Pathway Cost

**\$8.7M**

## Pathway 2

MCDA  
Score

**64**

MCDA  
Ranking

**2**

### Short term

**Accommodate**

Proactively raise floors of homes which could be flooded.

### Medium term

**Accommodate**

Proactively raise floors of homes which could be flooded.

### Long term

**Retreat**

Proactively moving people out of the way of the hazard.

Cost + Loss

**\$40.2M**

Cost + Loss  
Ranking

**2**

Damages  
Avoided

**\$0.3M**

Damages  
Avoided  
Ranking

**1**

Number of  
Buildings Still  
Exposed (2130)

**3**

Total Pathway Cost

**\$40M**