

Remediation of the East Tip, Haulbowline Island

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Divisional Manager
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Remediation of the East Tip, Haulbowline Island

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Cork County Council



Why are we here?

- New chapter in the story of the East Tip
- Overview of project the objective of which is to remediate the site to amenity end use
- Update the public on progress to date
- Obtain feedback, through public consultation, that can be integrated in design and EIS processes



Overview of Presentation

- Background
- Role of Cork County Council
- Quality Control/Quality Assurance
- Update on Risk Assessment
- Update on Environmental Impact Assessment, Appropriate Assessment and Outline Design



Background

- Steel Production took place on Haulbowline Island between 1939 & 2001
- Process waste dumped on sand spit to east of Naval Dockyard from early 1960s creating the East Tip (c. 9ha)



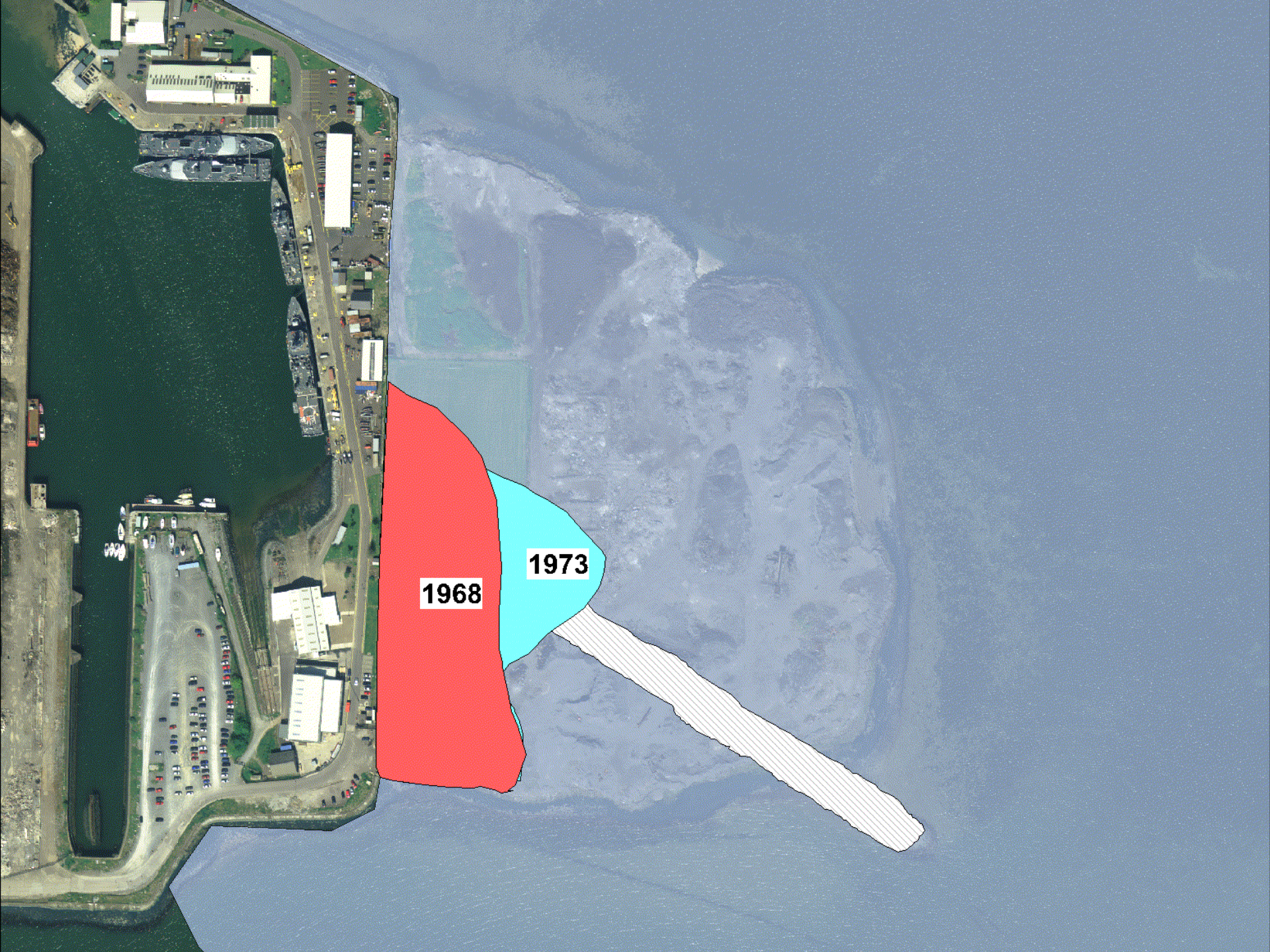


1956

Existing Stone Embankment

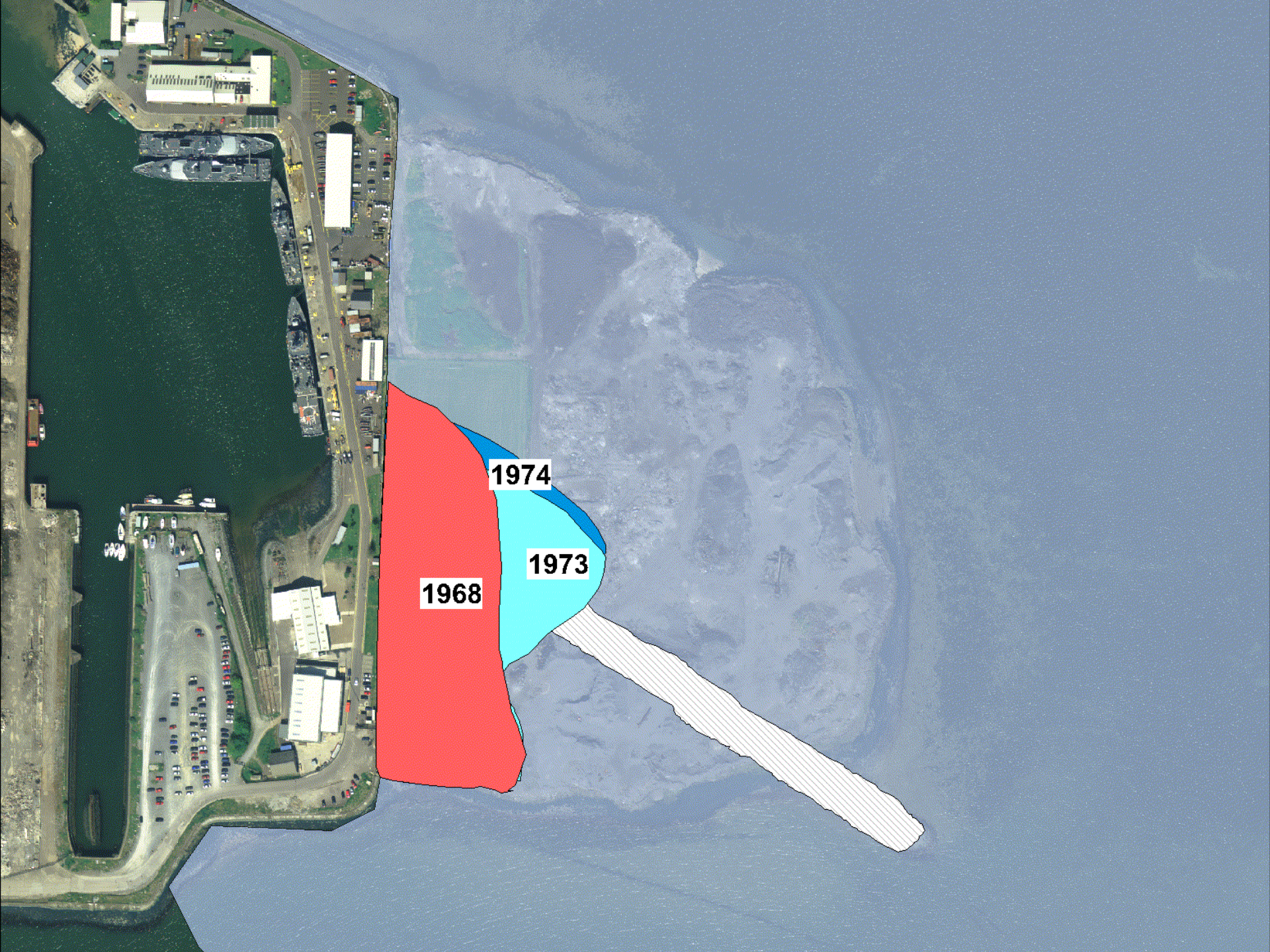


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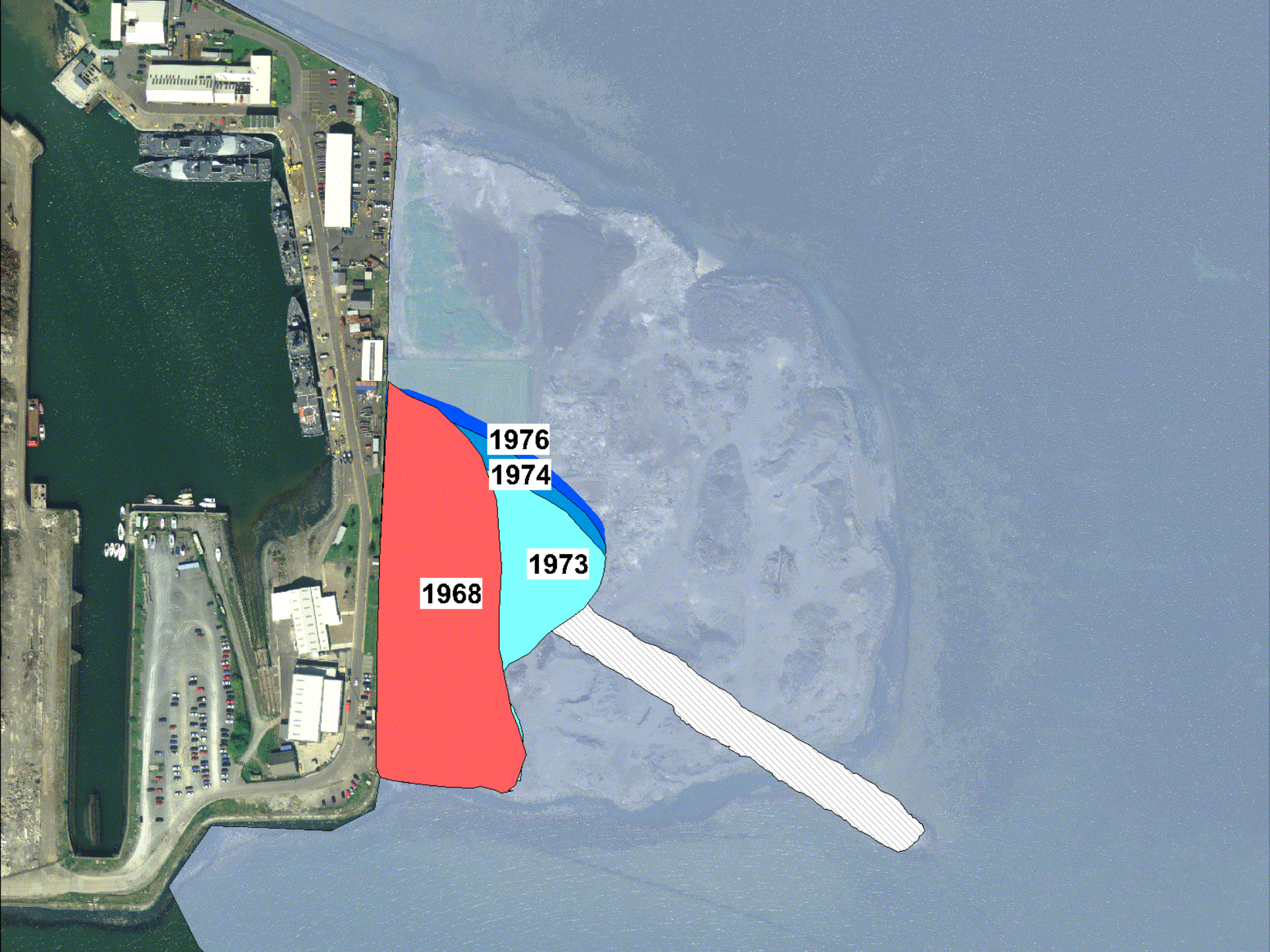
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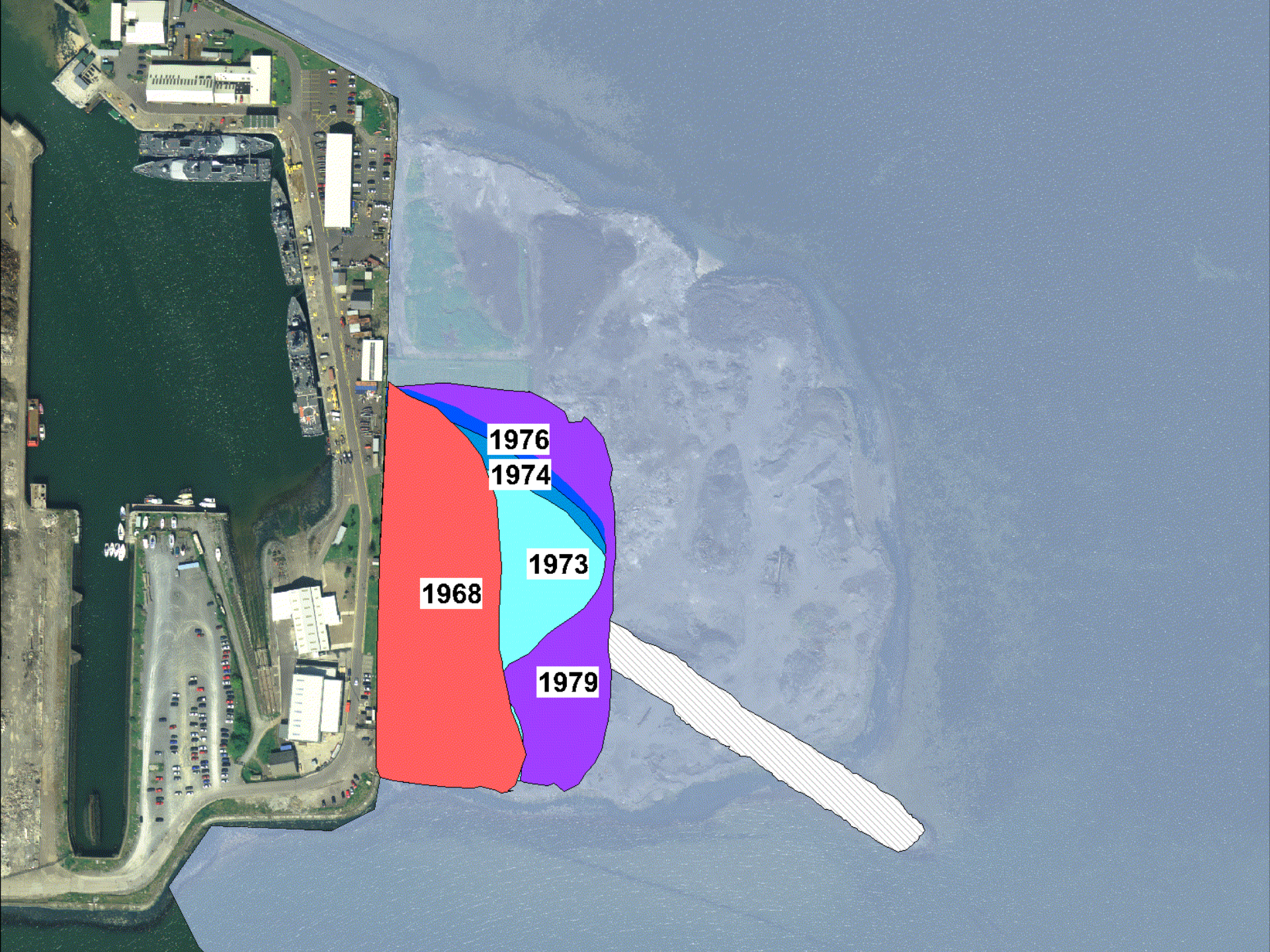


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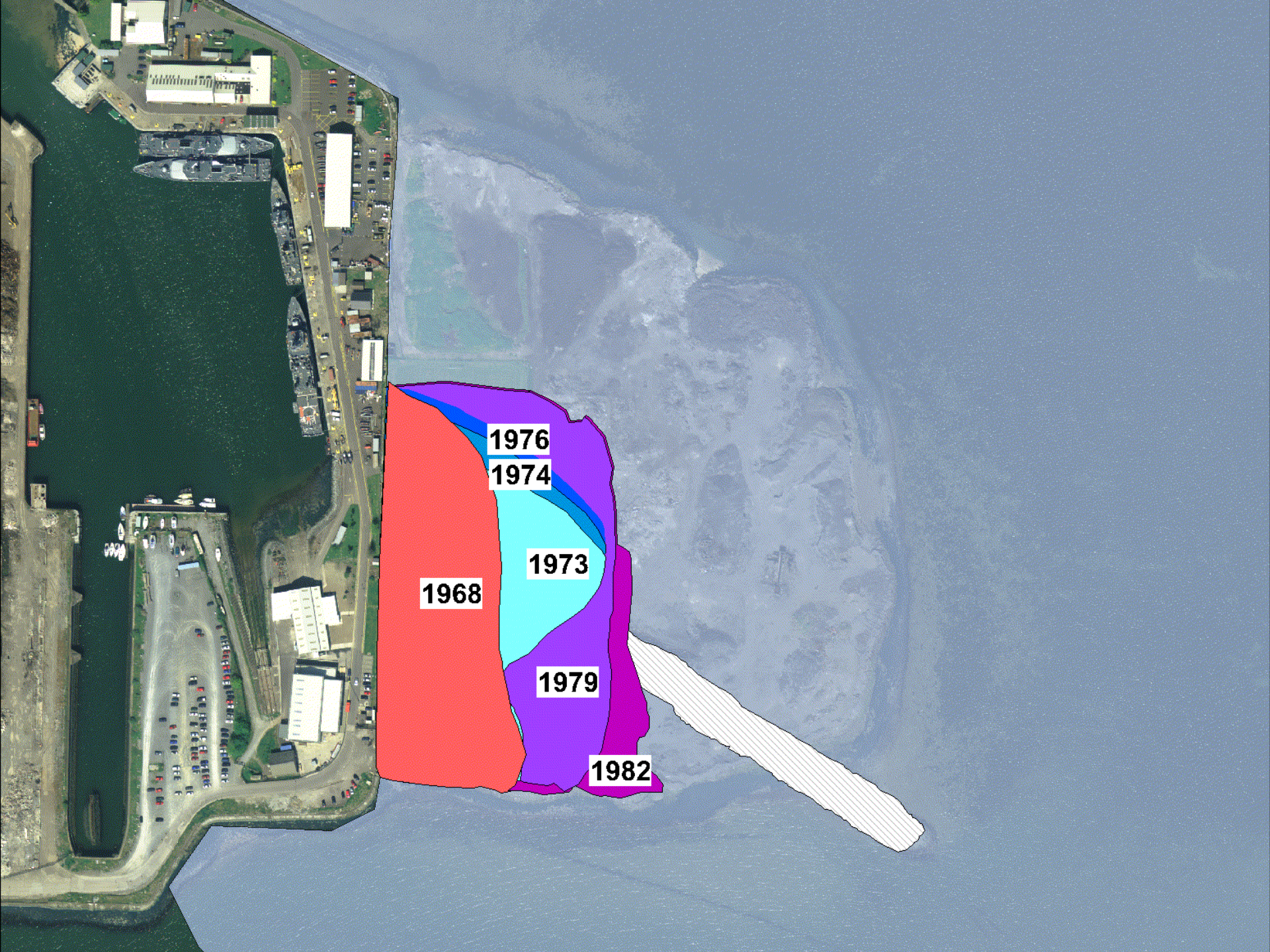


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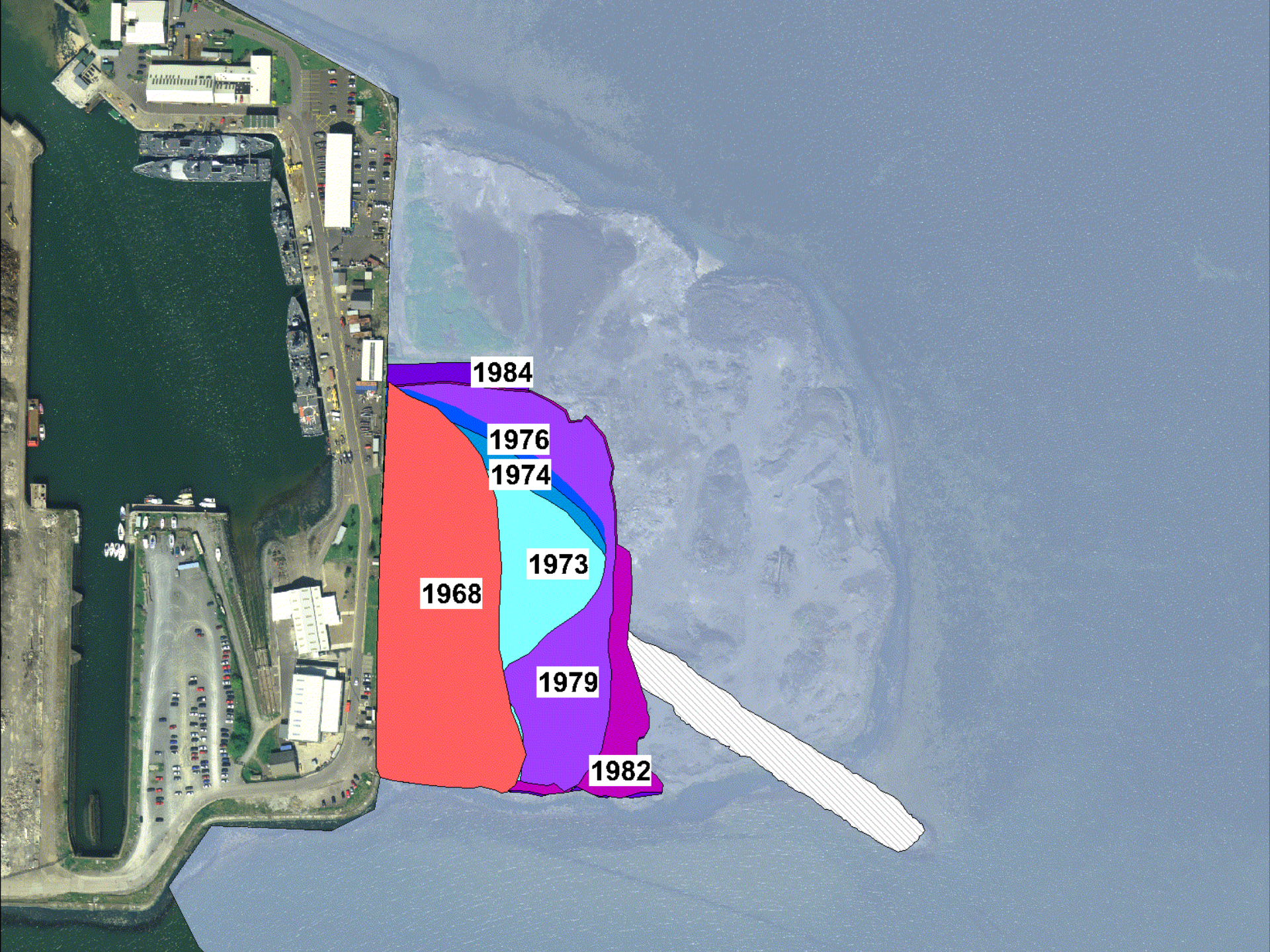
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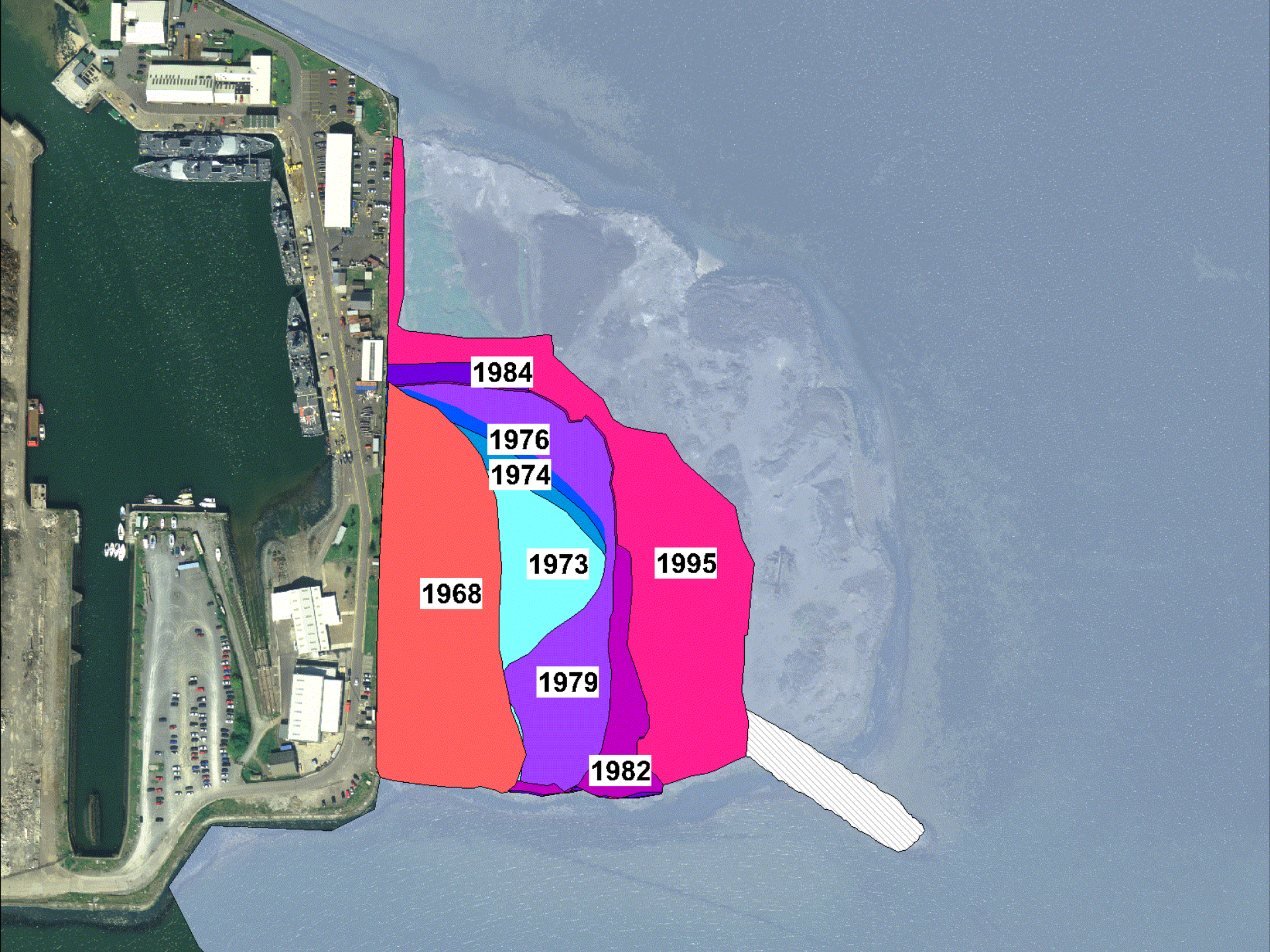
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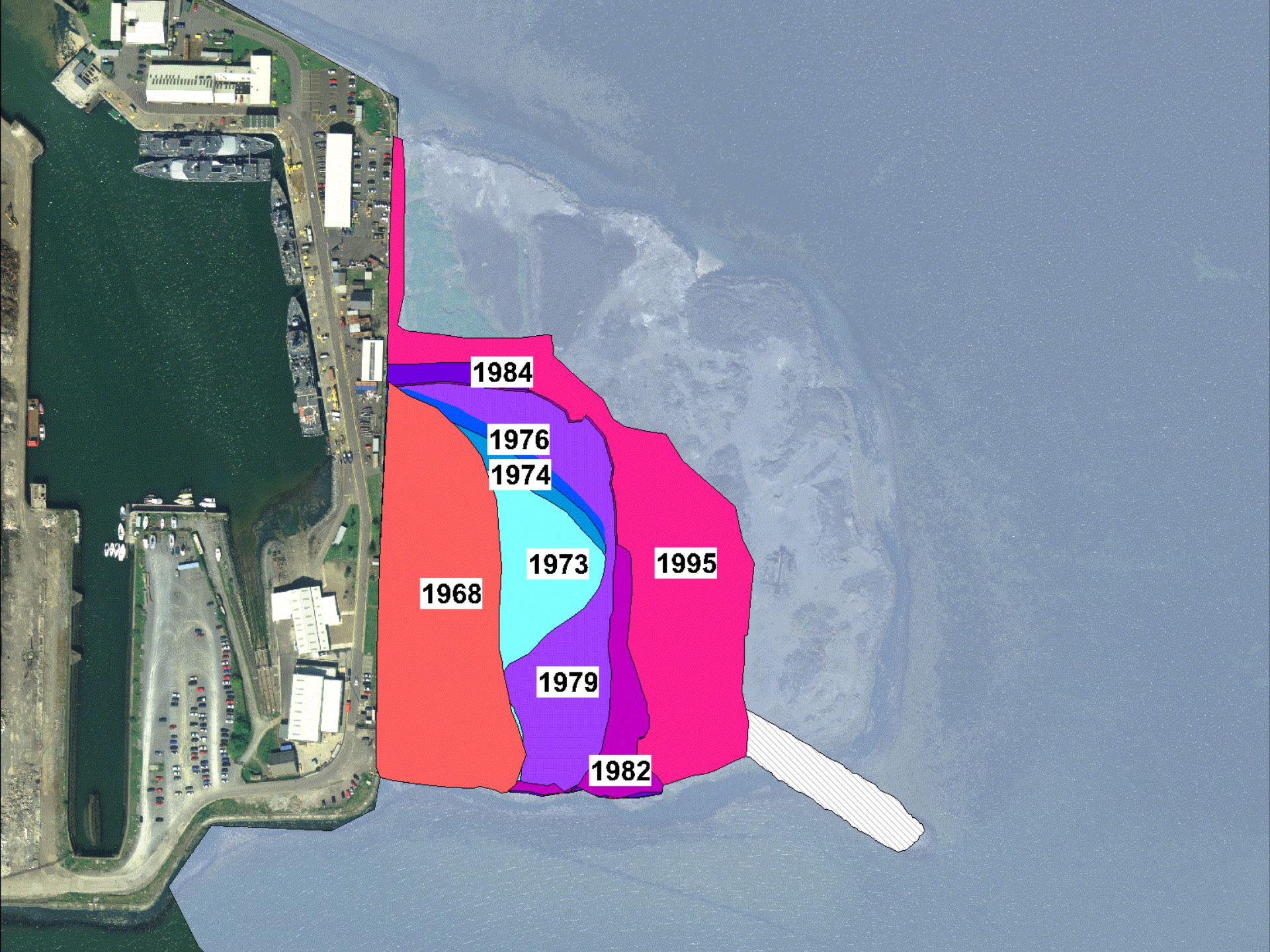
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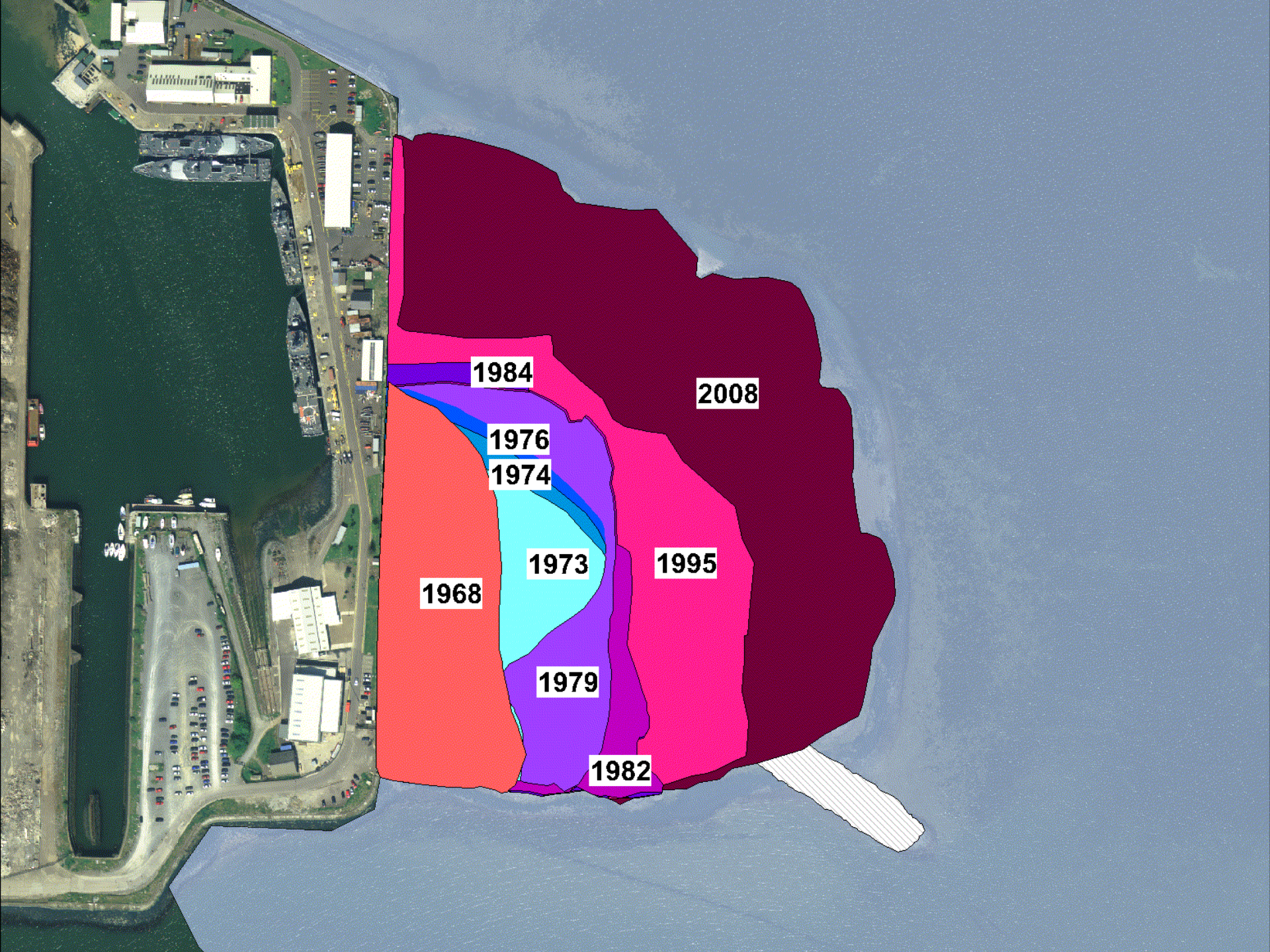
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Background

- Steel Production took place on Haulbowline Island between 1939 & 2001
- Process waste dumped on sand spit to east of Naval Dockyard from early 1960s creating the East Tip (c. 9ha)
- In response to European Court of Justice Judgement (ECJ 494/01) the County Manager was requested by Minister Coveney to facilitate remediation of site (July 2011)
- Project commenced end August 2011



Role of Cork County Council

- Progress remediation of the site from unregulated landfill to public amenity
- Regularisation process will entail an application for a waste licence, planning permission & a foreshore licence.



IMPORTANT NOTE:

A Waste Licence is required under European Law for the **EXISTING** waste mass. An application **IS NOT** being made for the acceptance/importation of waste i.e. site will not be operational.



Role of Cork County Council

- Progress remediation of the site from unregulated landfill to public amenity
- Regularisation process will entail an application for a waste licence, planning permission & a foreshore licence.
- Address concerns of local community









East Tip, Haulbowline Island, Remediation Project



No subsequent flooding

Aerial Photography courtesy
of SkyTec Ireland



Role of Cork County Council

- Progress remediation of the site from unregulated landfill to public amenity
- Regularisation process will entail an application for a waste licence, planning permission & a foreshore licence.
- Address concerns of local community
- Liaise with European Commission
- Project Management and co-ordination



Role of Cork County Council

- August 2011 - Project Manger appointed
- September 2011 - meeting with EC
- November 2011 - sea breach repaired
- December 2011 - Framework Agreement in place
- January 2012 - SKM appointed
- February 2012 – WYG EPT appointed to complete risk assessment (RA)
- March 2012 – Factual Report published
- April 2012 – SI commences (completed June)
- May 2012 - meeting with EC
- August 2012 – RPS appointed to complete Outline Design, EIS & Planning, Foreshore Licence and Waste Licence Applications
- September 2012 – RPS appointed to complete AA Screening Statement and NIA if necessary





Cork
County Council
Comhairle Contae Chorcaí

Project Management

SINCLAIR KNIGHT MERZ

SKM ENVIROS

Lot 1

Lot 2

ARUP

RPS



East Tip – Assessment and Context

Peter Young
Strategy Director
SKM Enviros



The next ten minutes -

- Why I am here tonight
- Putting East Tip into International Context
- Overall Approach to Assessment of the East Tip
- Desk Based Activities
- Scope of Recent Intrusive Investigation
- Investigation Process
- Investigation Findings



Why am I here?

- Project Director – appointed Lot 1 Consultant by Cork Co Co because recognised international experience in steelworks site remediation
- Project Manager is Mike McDonald – 20 years of working together on steelworks waste sites
- Using experience of successful remediation of steelworks tips to advise the project team
- Familiar with site, previously appointed by Irish Government during liquidation and aborted court cases 2001 to 2003.



East Tip on Closure of Steelworks, 2001



East Tip in International Context

- Irish Steel is a relatively small steelworks site
- East Tip contains less waste than on most former steelworks
- The island setting is unique but tipping on the coastline is common
- East Tip lacks the most difficult wastes
- The setting of the site is of past and future benefit, (as well as a current eyesore!)
- Unique in Ireland but common place in Europe



Llanwern
waste sites
>100ha



eg Ravenscraig

Before

After



- 400ha site
- 40ha waste tip
- Cork visited



Overall Approach to Site Assessment

- Objective : to characterise East Tip -> assess current & future impacts -> to inform a long term & risk based remedial solution
- Achieved through a combination of desk & site based studies and investigations
- Drawn on collective expertise & skills of Cork Co Co and their panel of consultants
- All studies undertaken following relevant guidelines and standards and are subject to independent peer review by SKM



Desk Based Activities

- Collation and review of all available archive material on the history of the East Tip
- Verified quality of past information & data
- Identified gaps in the current level of understanding of conditions within the East Tip
- Designed intrusive investigations (drilling boreholes and digging pits) to provide further targeted information on site conditions
- Scoped other necessary technical studies to support the remediation process.



Scope of Intrusive Site Investigation

- Cork Co Co commissioned the intrusive investigation in April 2012, for completion over this summer, to give:
 1. Comprehensive sampling & testing of waste materials across the East Tip to assess their content and properties
 2. Data for understanding all water movement (hydrogeological model)
 3. Completion of an environmental risk assessment to inform remedial options



Site Investigation Process (1)

- All known waste types present at the East Tip have been subject to detailed chemical analysis
- Comprehensive testing of underlying soils, waters and gases has also been undertaken
- A detailed understanding of geological conditions at the East Tip has been obtained
- Details on water movement & interaction with Harbour water have been measured
- All work has met quality assurance requirements



Site Investigation Process (2)



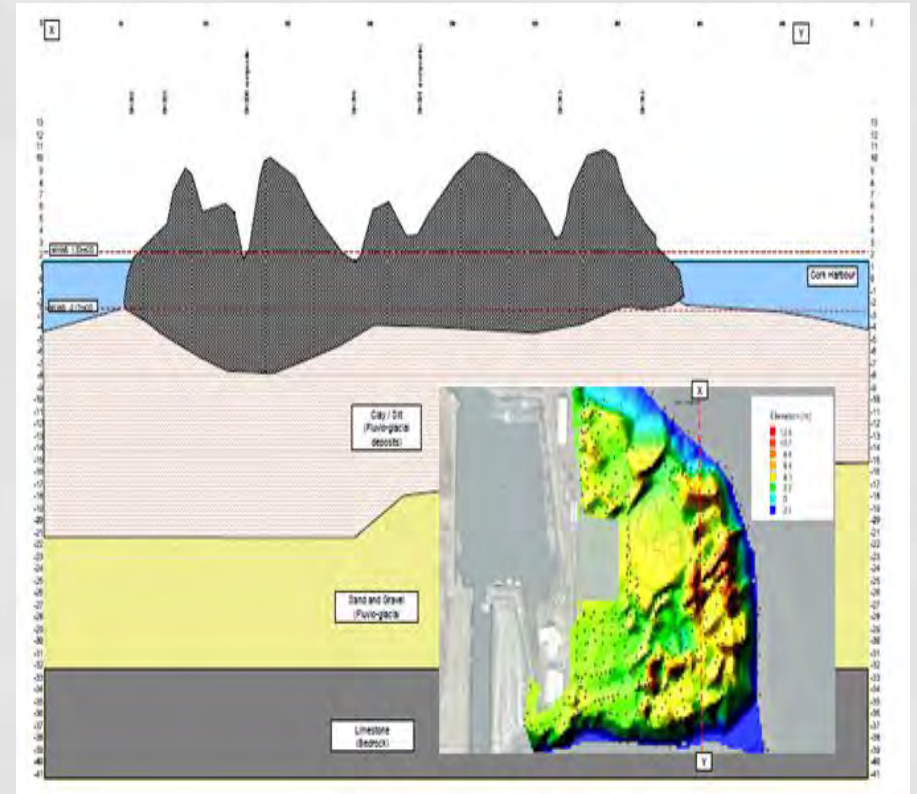
Followed by chemical testing of samples of tip material to determine content and properties

Detailed investigation of site conditions using appropriate techniques



Site Investigation Findings (1)

- Conditions are consistent with known local geology
- 3D picture of East Tip built up
- Beneath the tip is low permeability alluvial clays and silts
- Water movement throughout the tip is controlled by the daily tides as predicted



Site Investigation Findings (2)

- Testing has confirmed materials at East Tip are similar to those found on other steelworks sites & are consistent with known history
- Impacts on the surrounding environment are modest, the waste can be remediated on the island
- A range of remedial options are now being evaluated prior to choosing the design solution
- Remediation will leave a positive legacy and be future proofed for permanent protection of people and the environment



Remediation of East Tip – Update on EIS, Waste Licence, Appropriate Assessment & Design

Larry O'Toole
Director
RPS



RPS

- Multi-national Engineering, Environmental and Planning Consultancy
- Experienced project team
- Significant experience of remediation of contaminated land and waste sites including coastal sites (Balleally Landfill, Dundalk Landfill, Tramore Landfill, Tramore Coastal Wetlands Development)
- Regular environmental assessments of complex projects
- Knowledge of Study Area – e.g. Port of Cork projects



Statutory Processes

- Objective of project is to remediate site to amenity use
- Site has to be regularised
- Statutory processes to be followed

1. Planning Application	→	An Bord Pleanála
2. Waste Licence Application	→	EPA
3. Foreshore Application	→	Foreshore Unit - DECLG

- EIS to accompany the 3 applications
- Assessment of the Project with regard to nearby Natura Sites (Special Areas of Conservation & Special Protection Areas)



Design considerations

- Design to be developed for the proposed remediation of the site
- Design to be informed by results of Quantitative Risk Assessment
- Likely to involve re-profiling and capping of existing wastes
- Construction of engineered structure around perimeter to stabilise waste mass
- Management of water within site



Design considerations (2)

- Design to be 'buildable' - process includes technical dialogue with specialised contractors
- Issues of regrading, material handling, material removal, reuse of material, importation of materials (capping/subsoil/topsoil etc) to be considered
- Details of outline design to be included in EIS/WLA/PA



Planning Application Process

- An application for Planning Approval directly to An Bord Pleanála (ABP)
- First application in a series of consent processes
- Planning application for proposed remediation works (capping/reprofiling/perimeter structure) and for end use as amenity facility
- Application will include Design Details, EIS and NIS (if required)
- Application will be on public display for a minimum of 6 weeks; details will be advertised by newspaper notice at the time
- Opportunity for public submissions or observations directly to the Board during this period



Waste Licence Application

- Waste Licence Application required under Waste Management (Licensing) Regulations
- Application made to the EPA
- Licence required for the remediation and aftercare of the existing site only
- Waste Licence Application to include
 - Existing Environment & Impact, Emissions, Infrastructure, Controls & Monitoring, Materials Handling, Restoration & Aftercare etc
- Application to be supported by EIS



Foreshore Application

- An Bord Pleanála – will consider environmental effects of any works on the foreshore
- Consent still required from Minister – application to the Foreshore Unit of DECLG
- EIS will consider all relevant matters in relation to the foreshore including
 - Marine Ecology
 - Underwater Archaeology
 - Construction impacts
- Key stakeholders including NPWS, Heritage Service, Port of Cork, DAFM, Marine Institute and others are being consulted as part of the EIS process



Environmental Impact Statement (EIS)

- Key document to support the various applications
- Describes the proposed development
- Outlines the potential impacts on:
 - The Local Community
 - Local Road Network & Traffic
 - Air Quality & Climate
 - Noise & Vibration
 - Visual Impact
 - Use of Natural Resources
 - Ecology (Terrestrial & marine)
 - Hydrogeology & Hydrology
 - Archaeology & Cultural Heritage



Environmental Impact Statement (EIS)

Current EIS Status:

- EIS Scoping / Consultation Stage
 - Identify the main issues, concerns and likely impacts of the proposed development:
 - Construction Stage & End use / Aftercare Stage
- Baseline Surveys
 - Gather information on the existing environment

Going Forward:

- Examine the likely impacts
- Design/outline measures to avoid and minimise impacts on the local community and surrounding environment
- Preparation of EIS



Consultation with statutory bodies

- Statutory processes provide opportunity for consultation and scoping with statutory bodies
- In addition to public consultation, meetings being held with
 - EPA
 - Foreshore Unit of DECLG
 - Marine Institute
 - National Parks & Wildlife Service (NPWS)
- Comments on scoping of EIS invited from numerous organisations including Inland Fisheries Ireland, Irish Naval Service, Coastwatch, Birdwatch Ireland, Heritage Council, Failte Ireland, RNLI, Irish Wildlife Trust, NRA, Friends of the Earth, etc
- Feedback to assist in defining full scope of EIS and statutory applications



Statutory approvals

- Objective is to remediate site and convert to amenity use
- Statutory bodies will need to be satisfied that proposed remediation measures will protect public and surrounding environment
- Long-term monitoring and aftercare requirements to be defined in Waste Licence (if granted)



Follow the progress of the project in the
Latest News section at:

www.corkcoco.ie/haulbowline

You can also contact the Project Team by emailing:

haulbowline@rpsgroup.com

