strum
CONSULTING

Black Point Quarry

Fish Habitat Offsetting Plan

Date: July 16, 2025

Contents

1. Background Information
2. Proposed Offsetting Structures
3. Offsetting Areas Overview
4. Freshwater and Marine Offsetting

strum
CONSULTING

Background Information

- Black Point Aggregates (the Proponent), a wholly owned subsidiary of Vulcan Materials Company, is seeking to proceed with the construction and operation of the Black Point Quarry and Marine Terminal.
- The Proponent received Environmental Assessment (EA) approval with conditions in 2016 and an Industrial Approval (IA) permit with conditions in June 2025.
- A Request for Review (RfR) was submitted to DFO in July 2024 to support the Proponent's assessment of risks to fish and fish habitat.
- DFO confirmed Fisheries Act Authorizations (FAAs) would be required for the project impacts in both the freshwater and marine environments.
- Applications for FAAs are required to include Fish Habitat Offsetting Plans. Following guidance provided by DFO, offsetting will occur in the marine environment where high quality habitat suitable for multiple aquatic species will be created near the project site.
- **This presentation describes the combined freshwater and marine Offsetting Plan.**

strum
CONSULTING

Proposed Offsetting Structures

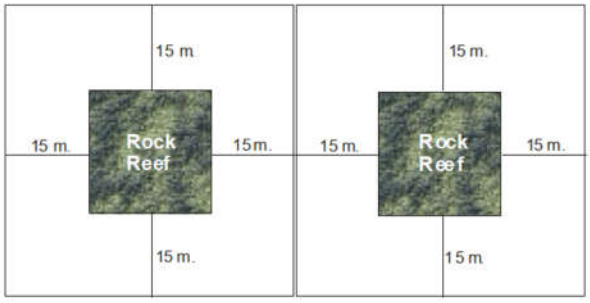
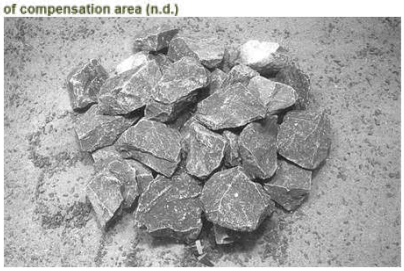


Figure 5.5: DFO's example of compensation area (n.d.)



strum CONSULTING

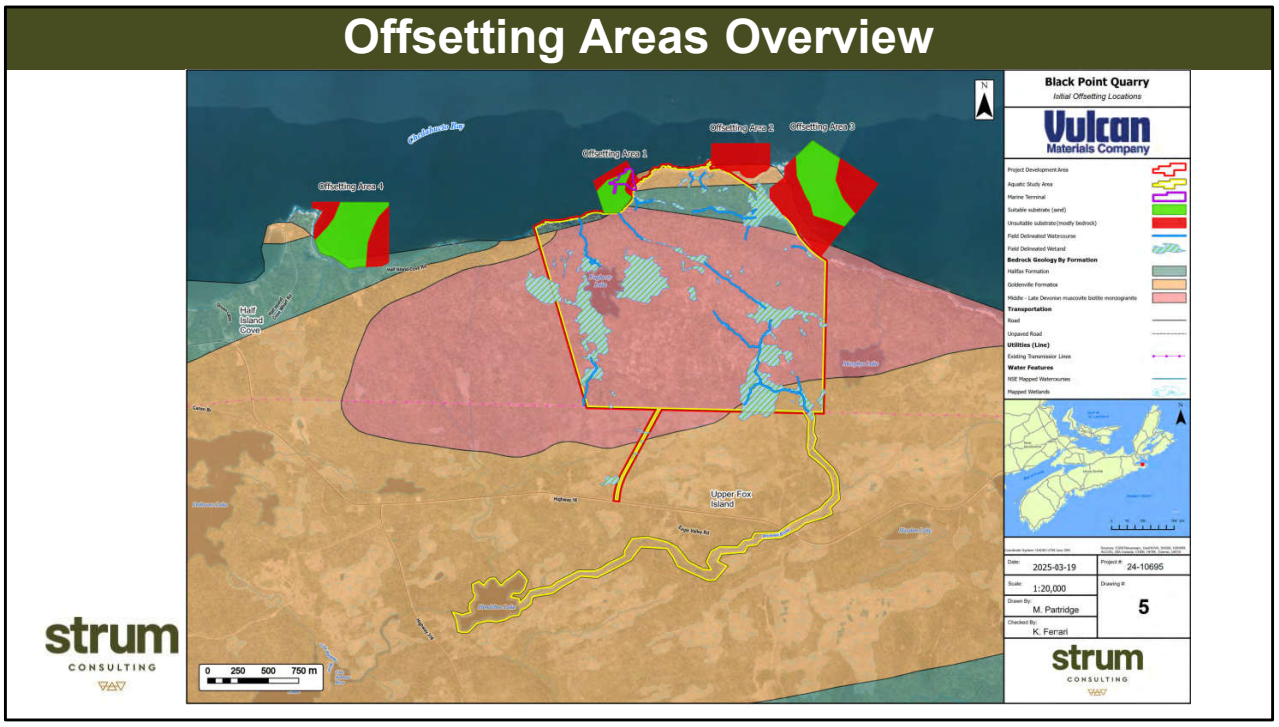
- Habitat enhancement through rock reef creation
- Focus is to develop functional habitat for American Lobster and other crevice dwelling species
- Over time the reefs develop macroalgae which increases the productivity of the ecosystem by providing food and cover from predators.
- Rock reefs will be spaced 30 meters apart with a 15-meter edge effect coming from each structure

Rock Reefs will be 3 m x 3 m with rocks stacked in a triangular cross-sectional form for stability and reaching a vertical height of 1-2 meters. They will be placed in such a way as to allow for space between rocks to create spaces for species to use (lobster, wolffish, etc). The rock reefs will be constructed using a combination of boulders (0.25-1.0 m), rubble (0.14-0.25 m) and cobble (0.03-0.13 m). These rocks will be quarried at the project site and transported by barge over to the Offset Site.

Artificial rock reefs are a common method used for marine habitat compensation. They mimic natural rocky reefs, providing structure, shelter, and foraging areas for fish.

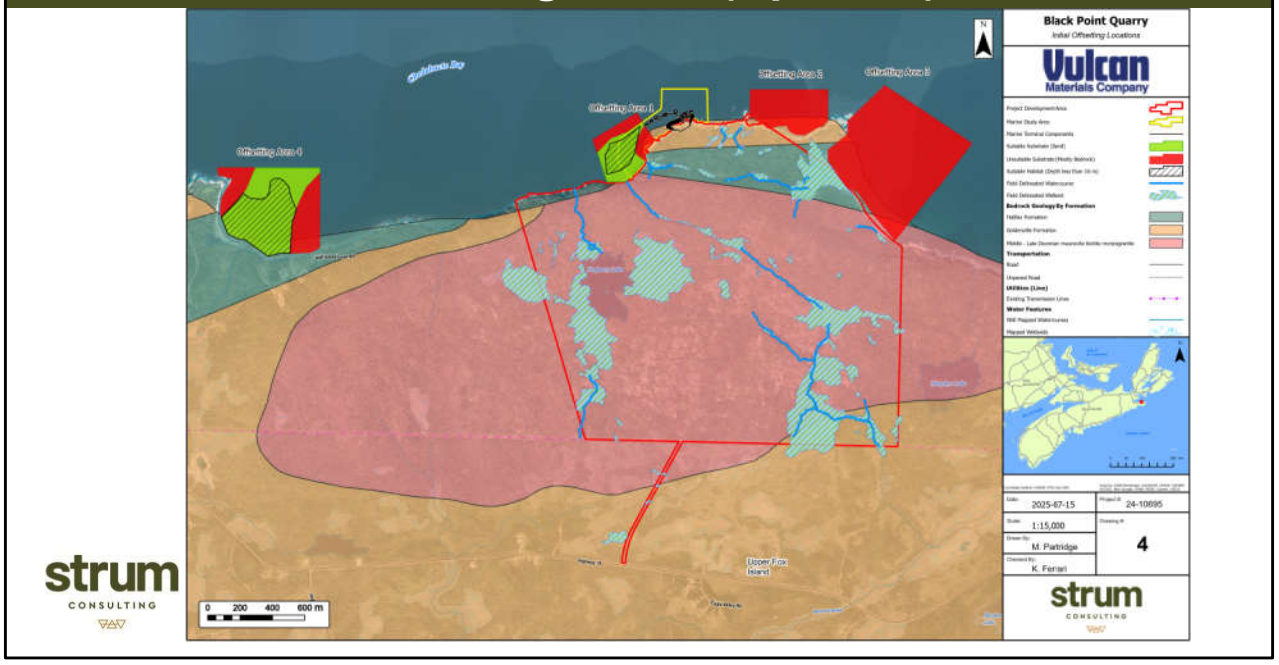
DFO's factsheet relating to Marine Fish Habitat Compensation states that there is a productivity increase that extends 15 meters away from each structure. This space adds additional complexity to the ecosystem and allows usage by other types of marine species (i.e. fish foraging on algae that will eventually grow on the structures).

Offsetting Areas Overview



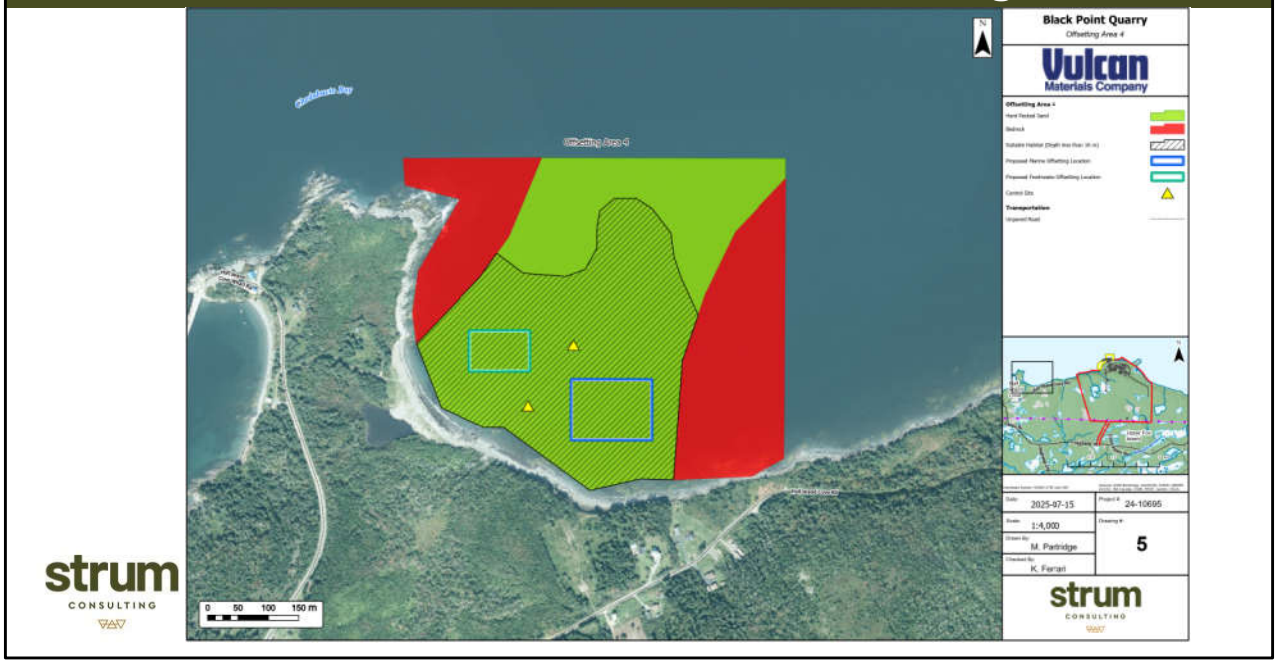
This slide shows the four offsetting area options that were presented previously and included within the Freshwater FAA application submitted on March 31st, 2025.
The green areas represent suitable habitat consisting of hard packed sand or gravel seabed.
The red areas represent unsuitable habitat: muddy silt or bedrock seabed or areas with eel grass beds.

Offsetting Areas (Updated)



Using submarine video to examine seabed geology and following discussions with DFO, Offset Area 4 was determined to be the most suitable area for the creation of new habitat. Not only is it farthest away from project related activities, the bottom substrate is currently unproductive habitat; the Offset Site is large enough to accommodate both freshwater and marine offsetting areas; and the water depth range meets DFO preferred criteria (less than 16 m – the area shown by the hatched lines).

Freshwater and Marine Offsetting



- This is a close-up Offsetting Area 4 which is the furthest area away from quarry activity. Rock reefs for the freshwater offset will be placed within the smaller light blue rectangle while reefs for the marine offsetting needs will be placed within the large dark blue rectangle. In reality, these areas may be moved closer together to form a single habitat zone or moved elsewhere within the suitable habitat zone.
- The yellow triangles are Control Sites, used as part of the follow up monitoring program to judge the success of new habitat creation. Monitoring will continue for years 2, 3 and 5 post-construction and may need to continue for additional years until the habitat is deemed stable and flourishing.

FAA: Freshwater Offsetting

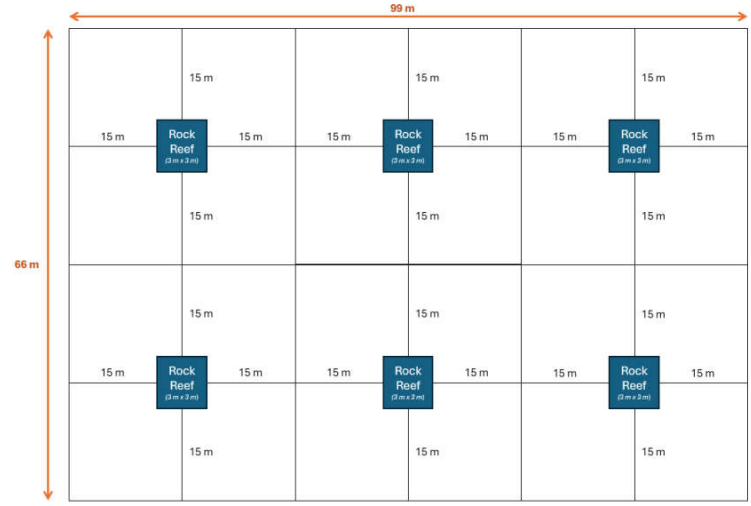


Figure 5.6: Proposed offsetting area layout

strum CONSULTING

- 6 Rock Reefs
- Spaced 30 meters apart with a 15-meter edge effect coming from each structure
- 0.56 ha of offsetting is required for the freshwater FAA
- Vulcan is proposing 0.65 ha of habitat offsetting due to the rock reef layout

Within the smaller light blue rectangle, 6 rock reefs will be constructed, as shown here.

FAA: Marine Offsetting

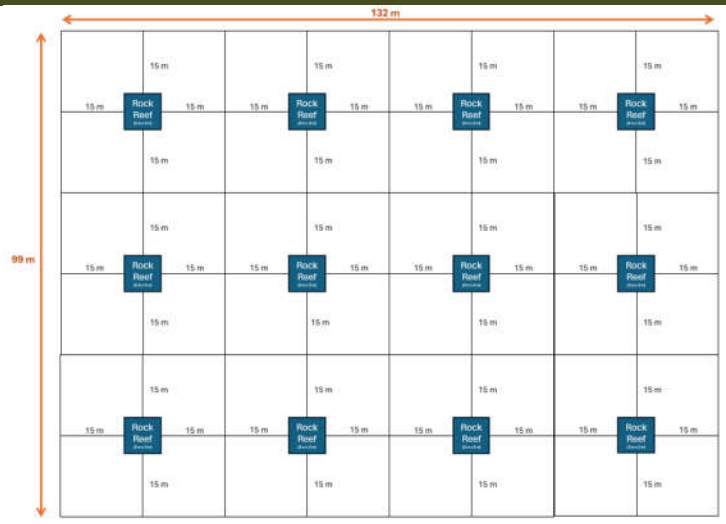


Figure 5.6: Proposed offsetting area layout

strum CONSULTING

- 12 Rock Reefs
- Spaced 30 meters apart with a 15-meter edge effect coming from each structure
- 1.2 ha of offsetting is required for the marine FAA
- Vulcan is proposing 1.3 ha of habitat offsetting due to the rock reef layout

Within the larger dark blue rectangle, 12 rock reefs will be installed.

Thank you for your interest
Should you have any questions or comments, please contact

Holly Brunson carmichaelh@vmcmail.com 205.410.6401 (VMC Manager, Environmental Services)

Russell Dmytriw russell979@outlook.com 902.499.1190 (AWCL, permitting support)

Frank Lieth liethf@vmcmail.com 404.293.1983 (VMC Vice President, Geological Services)

Chris Ridgway ridgwayc@vmcmail.com 205.873.6328 (VMC Manager, Geological Services)

Shaun Allain sallain@strum.com 902.830.2676 (Strum Consulting, EA Group Manager)

strum
CONSULTING