



SEASPAN VANCOUVER DRYDOCK WATER LOT PROJECT

Public Engagement Consideration Report
Appendix D: 2022 Community Survey Feedback Data

February 22, 2023

Community Survey Feedback Data on Proposed Mitigations

SEASPAN



Majid Khoury

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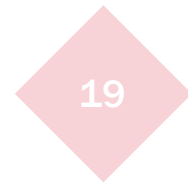
The Research



Summary



Feedback on Proposed Mitigations



Profile of Respondents



The Research

Research Methodology

OBJECTIVES

Collect feedback and input from North Vancouver residents and business owners on Seaspan's proposed mitigations to the Drydock project.

The survey development and data collection was managed by Majid Khoury Holdings Inc., an independent market research consulting firm.

SURVEY MODE

The feedback was collected through an online survey. The median time to complete this survey was 13 minutes.

North Vancouver residents and business owners were invited to provide feedback through a broad campaign across various channels, including:

- ◆ Advertisements
- ◆ Postcards to residents
- ◆ Website & social media
- ◆ Seaspan community feedback 24/7 line

SAMPLE

This analysis includes **652 interviews.**

- ◆ 479 respondents completed the full survey
- ◆ 173 partially completed the survey

Given these partially completed studies, the sample sizes at the bottom of each slide will vary.

In addition, 87 responses were not included in the 652, as they were duplicate responses.

Duplicate is assessed when a response comes from the same IP address and the response is also (a) exact duplicated response text, OR (b) no data was provided past the initial screening questions. It is a standard practice to remove these from analysis.

GEOGRAPHY

In this report, data is presented with a series of lenses.

- ◆ All respondents
 - ◆ Total set of respondents
- ◆ Core area
 - ◆ Those who indicated they live in the postal code area in closest alignment to Seaspan's defined 'consultation zone'
- ◆ Surrounding area
 - ◆ Those who indicated they live outside the core area (the rest of North Vancouver and elsewhere)



Summary

Key Insights

NO CONSENSUS ON RESPONSE TO PROPOSED MITIGATIONS

This process received input and participation from a range of respondents, but there was a lack of consensus on the proposed mitigations.

- ◆ Those who live in the core area, (closest to Vancouver Drydocks) were the most likely to be opposed. Only a third were in favour of most aspects of the proposed project and mitigations.
- ◆ As we move to the broader North Vancouver areas, there were fewer respondents, but more support from residents. Seventy percent were in favour of most proposed mitigations.

INITIATIVES HAVE VARYING SUPPORT

The **strongest opposition** was for the location of the proposed drydocks (**Siting**).

There was moderate opposition for proposed mitigations addressing potential operational impacts: **Air Quality, Light, Marine, and Noise**.

Construction-related proposed mitigations received the **most support**.

From the verbatim responses, concerns ranged from questions around **property values**, impacts to **views and leisure** limiting enjoyment of the waterfront, and concerns around **pollution**. These concerns were either questions about the construction period, or concerns related to an industrial site's presence in the region.

OPPOSITION COMES AMIDST HIGHLY CHARGED DEBATE

Respondents were very **committed to participation**, with **over half (54%)** choosing to respond to **all the proposed mitigations**.

Between responses to the survey and feedback in the verbatim comments it was clearly a **polarizing topic**.

A **third of all respondents** were **supportive of the overall proposed project**. These respondents typically **recognize the benefits Seaspan brings to the community** as an employer and partner in marine activity.

Another sizable segment of respondents were **against the proposed project and the proposed mitigations**. They tended to also share **negative feedback** and **lack of trust in Seaspan** and its place in the community.

Proposed mitigation initiatives have varying amounts of support

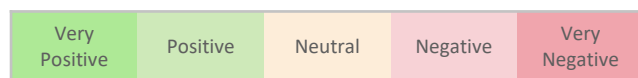
Rank Order of Effectiveness	Proposed Mitigation Category	Overall Effectiveness of Initiatives (Very/Moderately Effective %)			What proposed mitigations would be most supported? (All respondents: Very/Somewhat Well %*)
		All respondents	Respondents in Core Area	Respondents in Surrounding Area	
1	Lighting	44	33	72	Retrofit existing operations to be dark-sky friendly; use house-side shields, have dark-sky friendly lighting for work pontoon.
2	Construction	41	28	71	Have environmental consultants on site to oversee activities; Follow all safe practices guidelines as prescribed by the (DFO).
3	Marine Habitat, Spill Prevention & Emergency Response	40	30	68	Develop training to improve land-based marine firefighting and emergency response; Update its Fire and Emergency Response Plan with components of project proposal.
4	Noise	36	24	70	None of the proposed mitigations had at least half of respondents indicating it was Very/Somewhat Well supported. At least 40% were interested in trialing the use of noise-curtains; an assessment to verify the predictions and identify additional measures; use sound barriers around the UHP pumps; increase awareness and access to noise monitoring stations.
5	Air quality	35	25	68	Invest in a solvent recycling system to reduce VOC emissions.
6	Drydock siting	31	21	61	None of the proposed mitigations had at least half of respondents indicating it was Very/Somewhat Well supported. Collaborating to select the exterior color for the Drydocks was only of interest to a third (36%) of respondents. Most wanted a move east to alleviate concerns.

*Proposed mitigations outlined above had half the respondents indicating it would meet needs Very / Somewhat Well

Listening to their voices: Reading their comments on Proposed Mitigations

Ranked Order of Support	Mitigation Category	General Sentiment	Volume of Comments on this Topic	Key Themes of Concern from the Feedback
1	Lighting			While fewer comments specifically about lighting were raised, they had a strongly negative sentiment. Concerns related to light pollution disrupting sleep patterns and an impact to aesthetics at night across the waterways. Lighting concerns were often raised in concert with other forms of pollution: Air, Marine, Noise.
2	Construction			Construction concerns were most often related to concern about building integrity from pile driving and traffic-related noise from employees.
3	Marine Habitat, Spill Prevention & Emergency Response			Comments mostly related to concerns about what could happen if there is an accident and lack of trust in the spill prevention and emergency protections. Respondents also raised concerns about limits to enjoying the waterways for leisure activities. As with other areas, concerns about preserving water quality were often tied with concerns about other forms of pollution: Air, Light, Noise.
4	Noise			Noise concerns were raised frequently and with some of the strongest negative sentiment due to a lack of trust in noise management being fulfilled. Questions were raised around hours of operation, access and availability of information, and health risks to community.
5	Air quality			Comments shared concerns about existing air pollution impacts from industrial production at the port. Comments about air quality were often raised in concert with other forms of pollution: Light, Marine, Noise.
6	Drydock Siting			The concern is largely driven by interest in shifting locations east, with many in vocal opposition to the present location. Others wanted more information on why the present location was necessary. Where concerns were shared it was related to impact on enjoyment of the views and leisure activities, impact to property values, and general concerns about industrial expansion in the area.

General Sentiment Legend



Volume of Comments Legend

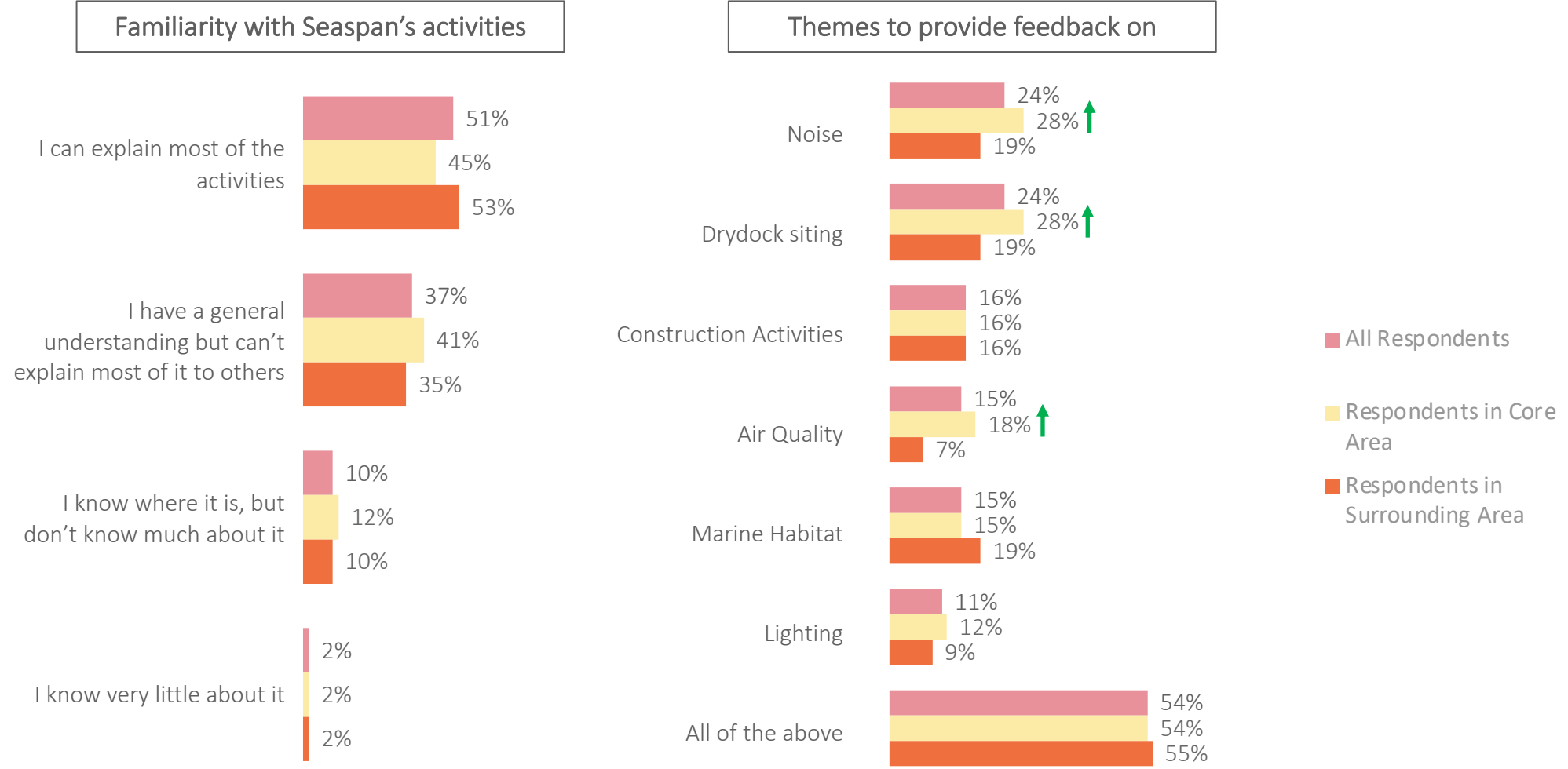




Feedback on Proposed Mitigations

The majority of respondents (88%) have at least a general understanding and familiarity with Seaspan activity. Over half (54%) wanted to provide feedback on all initiatives.

Those respondents who live in the Surrounding area of the Drydocks were quite engaged. More than half were able to explain most of the activities and chose to provide feedback on all initiatives.



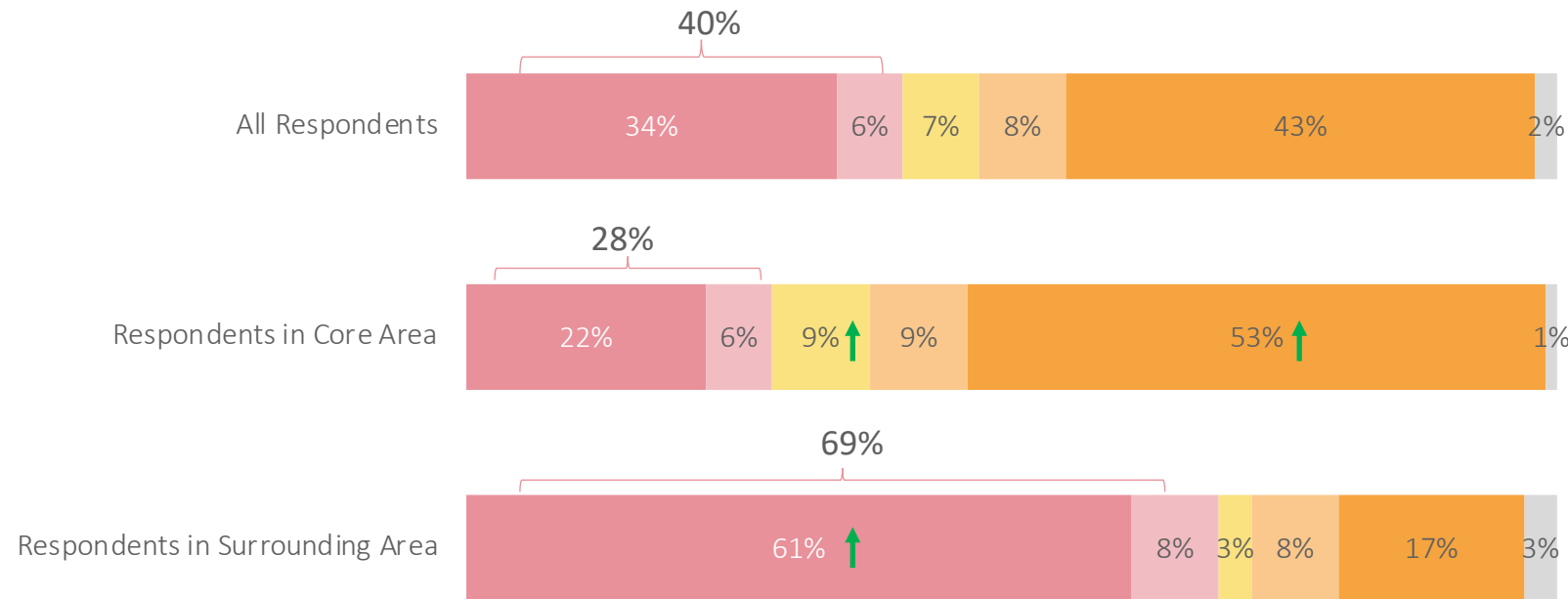
Base: All Respondents (n=652); Respondents in Core Area (n=462), Respondents in Surrounding Area (n=101)

A2. Which of the following best describes how familiar you are with the drydock operations, repair and maintenance activities happening at Seaspan's Vancouver Drydocks?
 A3. In our first phase of public engagement, feedback and comments fell into key themes. In some cases, the proposed mitigations are lengthy and there is a lot of information to consider, but we are seeking your opinion and input as best you can. You may choose the themes you want to provide feedback on, and may also provide general comments. To begin, which key themes of the proposed project would you like to provide your feedback on?

No consensus on the collection of proposed mitigations, with a mix of support and opposition

When asked about the proposed mitigations, 28% of residents in closest proximity to the Vancouver Drydocks (core area) felt the mitigations were effective to address concerns. That increased to 69% for North Vancouver residents in the surrounding area – beyond the core.

Overall impression of the proposal



Those living in the neighbourhood more than five years are stronger supporters. In fact, those more familiar with Seaspans and their activities, are more likely to be in favor of the plan (49% I really like/like).

- I really like the current plan with the additional mitigations and don't have any significant issues
- I like most aspects of the plan but there are a few things I dislike
- I have mixed thoughts - there are many things I like and many things I dislike
- I dislike most aspects of the current plan with the additional mitigations, but there are a few things I like
- I dislike it and have significant issues with the plan – even with the additional mitigations and modifications
- Don't know

↑ Statistically significantly higher than the other subgroup @95% confidence level

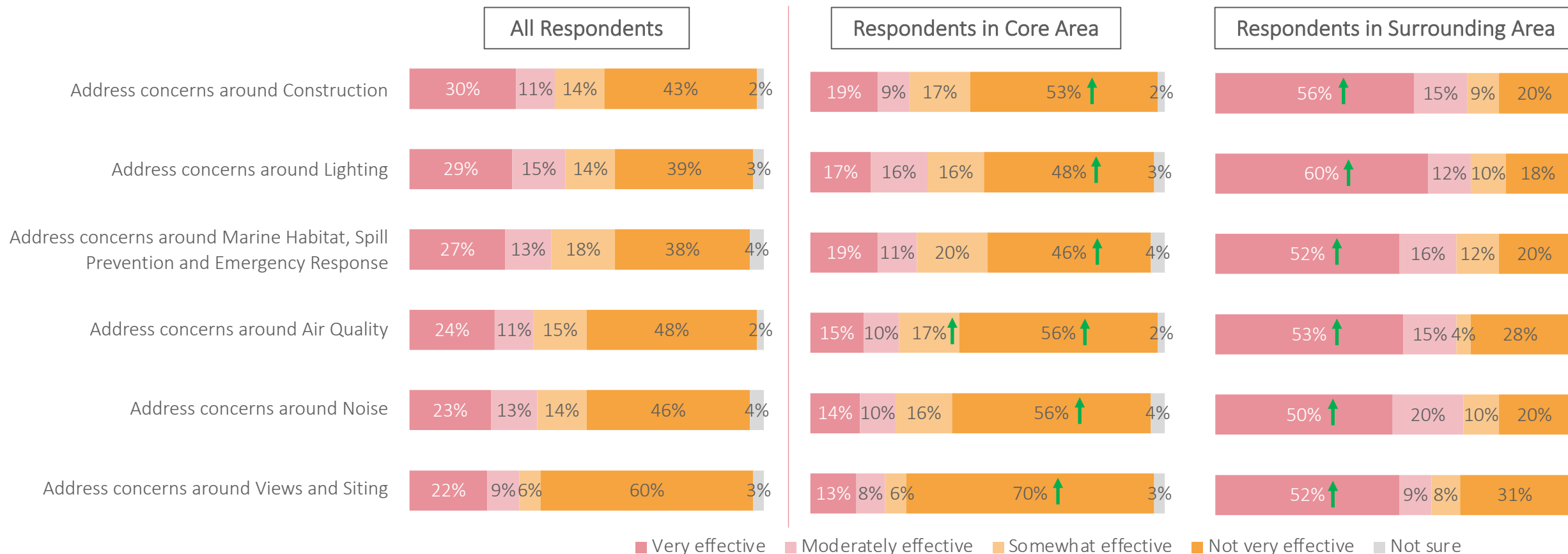
Base: All Respondents (n=486); Respondents in Core Area (n=353), Respondents in Surrounding Area (n=71)

I1: This survey has shared the proposed mitigations and modifications to the project that would be incorporated into the proposed water lot project should it be approved by the port authority. Which one of these statements best captures your thoughts about the project with the proposed mitigations and modifications?

Response to effectiveness of these proposed mitigations varied by location

In the core, concerns about Views and Siting were on average fifty percent higher than other areas. Support was also muted for initiatives around Noise and Air Quality. For those living in the surrounding areas, support was much stronger, especially for initiatives meant to manage long term impacts to the area.

Effectiveness of proposed initiatives



Base size varies by initiative: All Respondents (n=354~432); Respondents in Core Area (n=260~327), Respondents in Surrounding Area (n=44~65)

- B2. In general, how effectively will these initiatives address concerns around Air Quality?
- C2. In general, how effectively will these initiatives address concerns around Construction?
- D2. In general, how effectively does this initiative address concerns around Views and Siting?
- E2. In general, how effectively will these initiatives address concerns around Lighting?
- F2. In general, how effectively will these initiatives address concerns around Marine Habitat, Spill Prevention and Emergency Response?
- G2. In general, how effectively will these initiatives address concerns around Noise?

↑ Statistically significantly higher than the other subgroup @95% confidence level

With a focus on strategies to mitigate existing light concerns, proposed lighting mitigations enjoyed more support.

Lighting – Proposed Mitigations

Seaspan will retrofit the existing operations lighting across the site to also be dark-sky-friendly. While outside the of the scope of this project application, Seaspan has initiated design work for the replacement of existing light poles and building mounted lights with dark sky friendly lighting incorporating ‘House-Side Shields’ where appropriate.

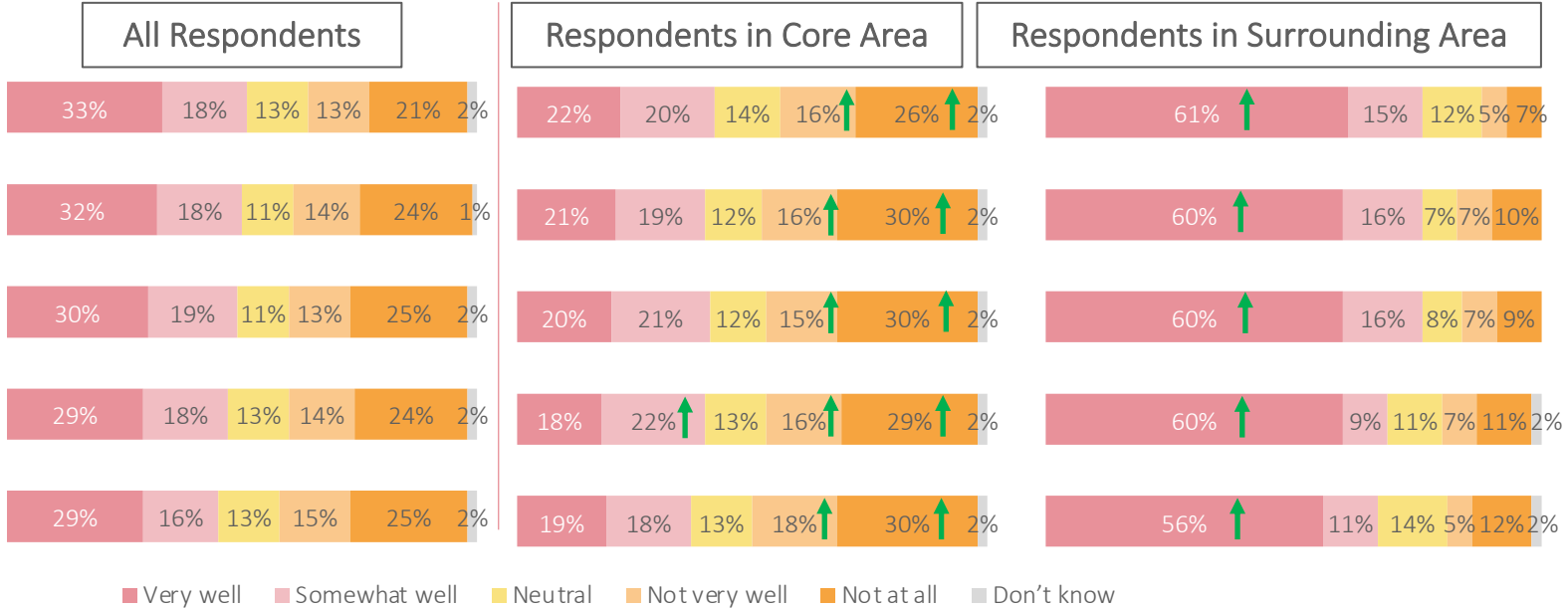
Seaspan will use house-side shields on the work pontoon for fixtures facing residential areas, to reduce the light spread. With this shield added the lighting level is reduced to zero at 11m/35ft from the work pontoon (versus 28m/92ft without a shield).

Seaspan will use dark-sky-friendly lighting to illuminate the work pontoon. Dark-sky-friendly lighting is specifically designed to meet safety requirements and eliminate light outside of the required circulation and work areas.

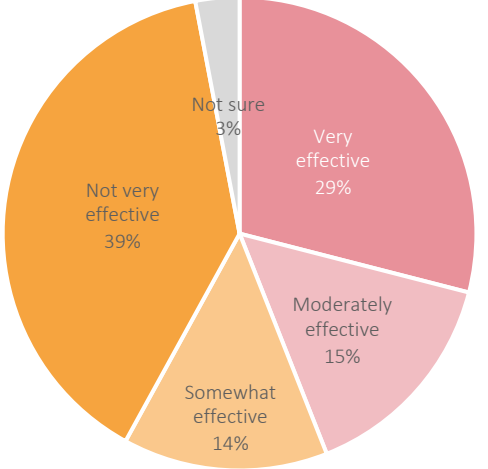
Seaspan will reduce the colour temperature of the light fixtures to 3000degK (warm white) (from original proposal of 4000degK (cool white)) to minimize blue light emissions.

Seaspan will reduce the height of the light poles on the work pontoon to 7.5m (25ft) (from original proposal of 10.7m (35ft)) to minimize the visual impact.

Extent Initiatives Meet Needs



Will Initiatives Address Concerns?



Respondents in Core Area
Very/moderately effective 33%

Respondents in Surrounding Area
Very/moderately effective 72% ↑

↑ Statistically significantly higher than the other subgroup @95% confidence level

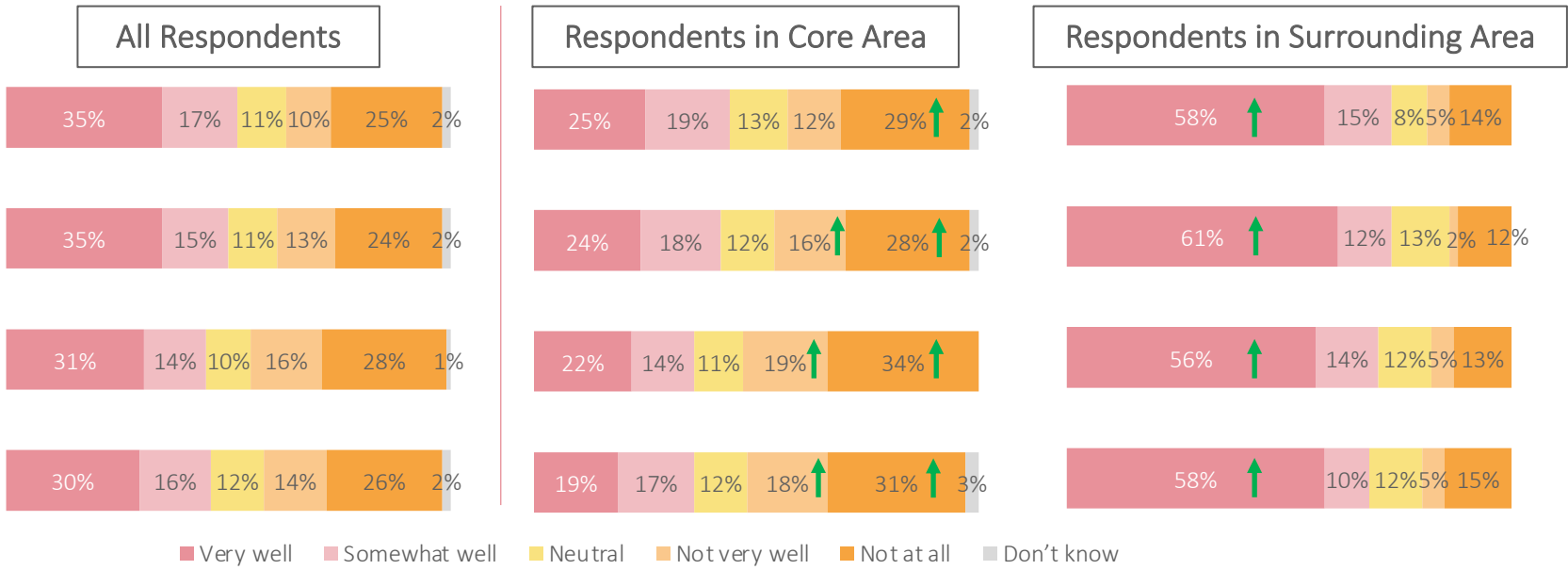
Base: All Respondents (n=355); Respondents in Core Area (n=261), Respondents in Surrounding Area (n=57)
 E1. Seaspan received the feedback on lighting and is proposing to take a number of additional steps, described below. To what extent do these initiatives meet your needs?
 E2. In general, how effectively will these initiatives address concerns around Lighting?

Concerns for noise were the biggest driver of opposition to construction mitigations. Proposed plans for the safety of the site were supported.

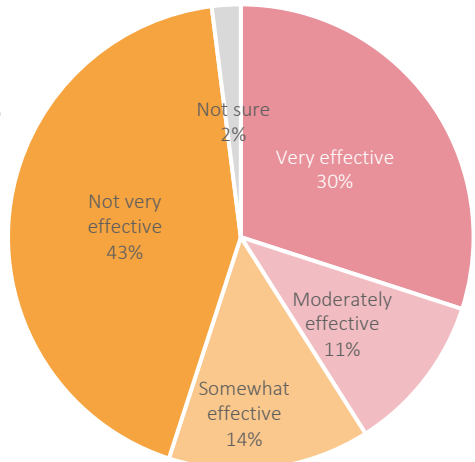
Construction Proposed Mitigations

- Seaspan will have environmental consultants on site to oversee construction activities, measure noise, and observe wildlife use of the area to ensure that they are not negatively affected.
- Seaspan will follow all safe practices guidelines as prescribed by the Department of Fisheries and Ocean (DFO) to limit impact to marine wildlife while performing the construction work.
- Seaspan will reduce pile driving noise during construction by pile driving only during daylight hours.
- Seaspan will ensure the engines on all construction equipment are running efficiently, will use soft start procedures, and will time construction operations within daylight hours.

Extent Initiatives Meet Needs



Will Initiatives Address Concerns?



Respondents in Core Area
Very/moderately effective 28%

Respondents in Surrounding Area
Very/moderately effective 71% ↑

↑ Statistically significantly higher than the other subgroup @95% confidence level

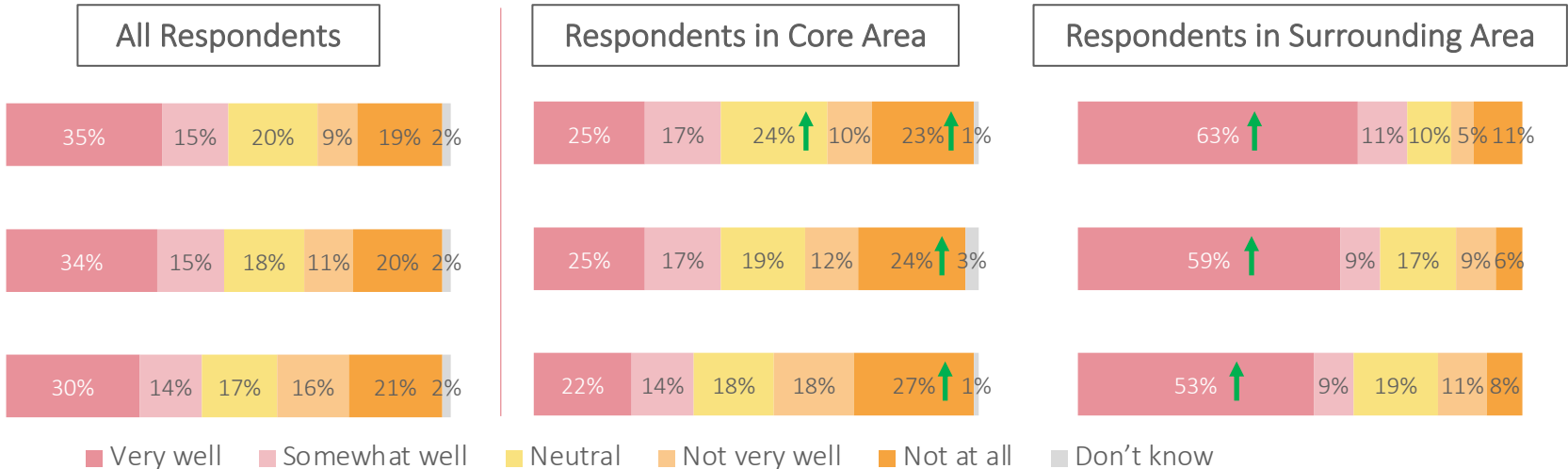
Base: All Respondents (n=378); Respondents in Core Area (n=274), Respondents in Surrounding Area (n=59)
 C1. Seaspan received the feedback on the proposed construction activities and is proposing to take a number of steps, described below. To what extent do these initiatives meet your needs?
 C2. In general, how effectively will these initiatives address concerns around Construction?

The proposed mitigations on marine spill and emergency response met with general support.

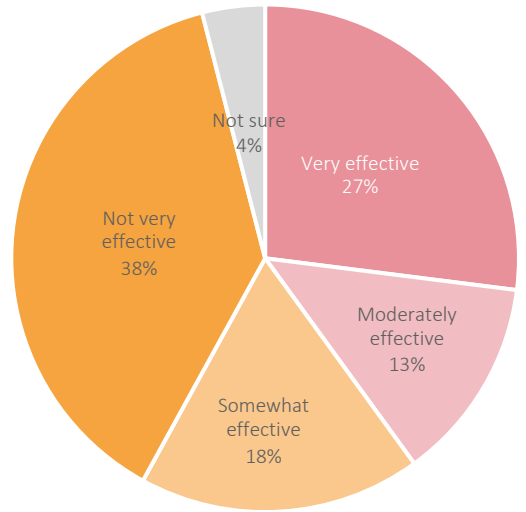
Marine Habitat, Spill Prevention, and Emergency Response Proposed Mitigations

- Seaspan will continue to work with all three North Shore fire departments to develop comprehensive training to improve land-based marine firefighting and emergency response.
- Seaspan will update its Fire and Emergency Response Plan to include all components of the proposed project.
- Seaspan will promote safe navigation and further reinforce safe on-water operations by providing vessel owner representative(s) with a link to port authority's Information Guide.

Extent Initiatives Meet Needs



Will Initiatives Address Concerns?



Respondents in Core Area
Very/moderately effective 30%

Respondents in Surrounding Area
Very/moderately effective 68% ↑

↑ Statistically significantly higher than the other subgroup @95% confidence level

Base: All Respondents (n=377); Respondents in Core Area (n=272), Respondents in Surrounding Area (n=64)

F1. Seaspan received some feedback about marine habitat, spill prevention and emergency response and is proposing to take a number of steps, described below. To what extent do these initiatives meet your needs?

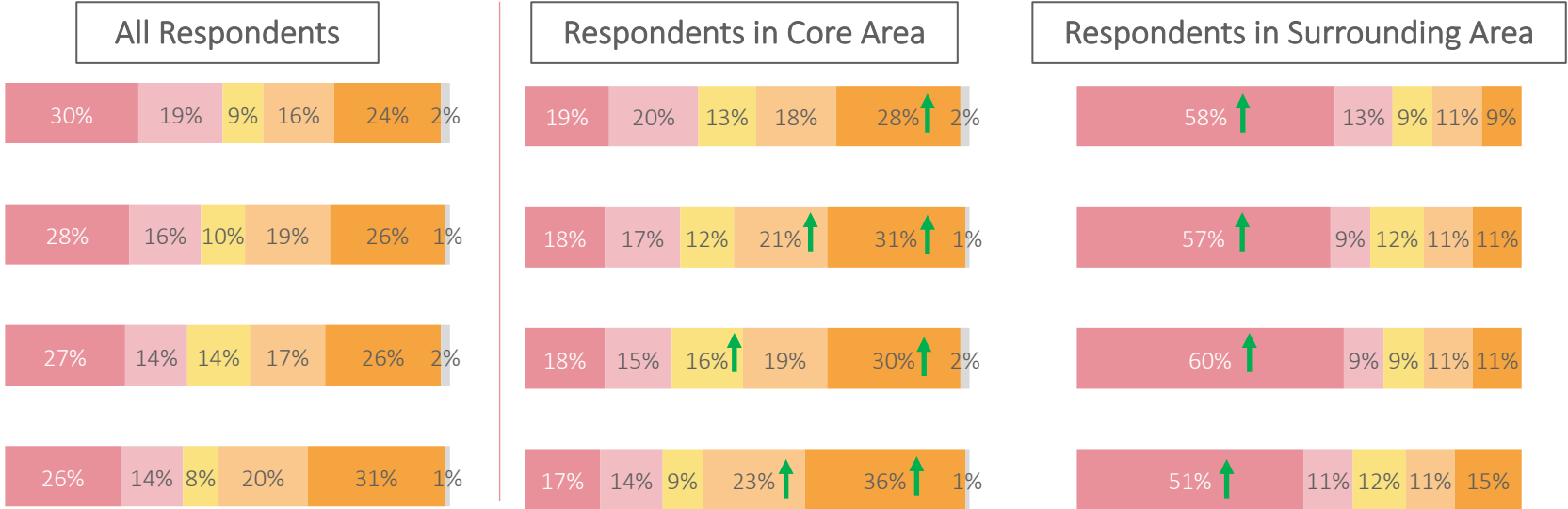
F2. In general, how effectively will these initiatives address concerns around Marine Habitat, Spill Prevention and Emergency Response?

Given concerns related to the air quality health impacts, there is most support for investments in technology to reduce health impacts.

Air Quality Proposed Mitigations

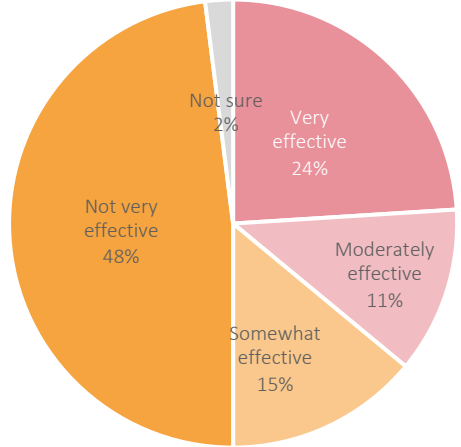
- Seaspan will invest in a solvent recycling system to reduce VOC emissions against current baseline conditions. (This equipment is currently on order.)
- Seaspan will actively monitor particulate emissions in compliance with an anticipated Metro Vancouver air quality permit. Monitoring and reporting will commence once Metro Vancouver confirms the equipment specifications for compliance. A quarterly report will summarize results from the previous period compared against the permit criteria and will be available on the Vancouver Drydock website and through Metro Vancouver.
- Seaspan will work with industry experts to assess new tools and technology in paint volatile organic compound (VOC) content and non-solvent based alternatives in the marine coating industry.
- Seaspan will conduct dust sampling in the adjacent neighbourhood twice a year. Seaspan will work with the community to identify the preferred months and monitoring location.

Extent Initiatives Meet Needs



Very well Somewhat well Neutral Not very well Not at all Don't know

Will Initiatives Address Concerns?



Respondents in Core Area
Very/moderately effective 25%

Respondents in Surrounding Area
Very/moderately effective 68% ↑

↑ Statistically significantly higher than the other subgroup @95% confidence level

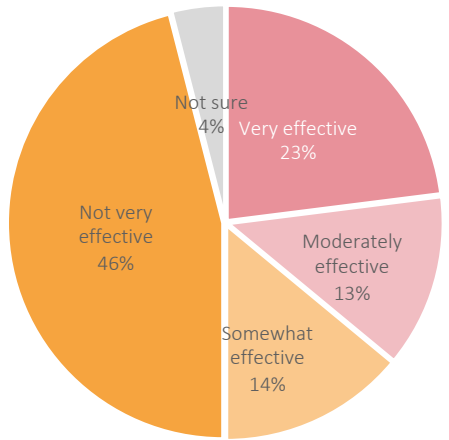
Base: All Respondents (n=383); Respondents in Core Area (n=289), Respondents in Surrounding Area (n=53)
 B1. Seaspan received the feedback on air quality and is proposing to take a number of additional steps, described below. To what extent do these initiatives meet your needs?
 B2. In general, how effectively will these initiatives address concerns around Air Quality?

Initiatives introducing technology and noise-reducing measures were of most interest. Overall, only a third in the core area were supportive, while outside the core only a third were against.

Noise Proposed Mitigations

- Seaspan will trial the use of noise-reducing curtains on the drydocks. Acoustical consultants will establish baseline measurements at Vancouver Drydock and, in the community, to determine the effectiveness of the curtains. Seaspan will collaborate with the community to identify where the measuring devices will be placed in the community.
- Seaspan will complete a post-project noise assessment to verify the permit application model predictions and to identify additional noise-reduction measures. For this assessment, Seaspan will collaborate with the community to identify where the measuring devices will be placed in the community and will post the results on Seaspan's project website.
- Seaspan will use sound-reducing barriers around the ultra-high pressure (UHP) pumps, where practical. The use of the barriers follows a spring 2022 trial of noise-reducing materials. The results of the trial are available on the project website and will also be documented within the post-project noise assessment.
- Seaspan will increase awareness of and access to the port authority's real-time noise monitoring station, which is located at the boundary of the Vancouver Drydock site by creating a direct link on the Seaspan website.
- Seaspan will work to notify the community in advance when potential high noise-generating work is anticipated outside of the regular working hours of 7:00am to 11:00pm.

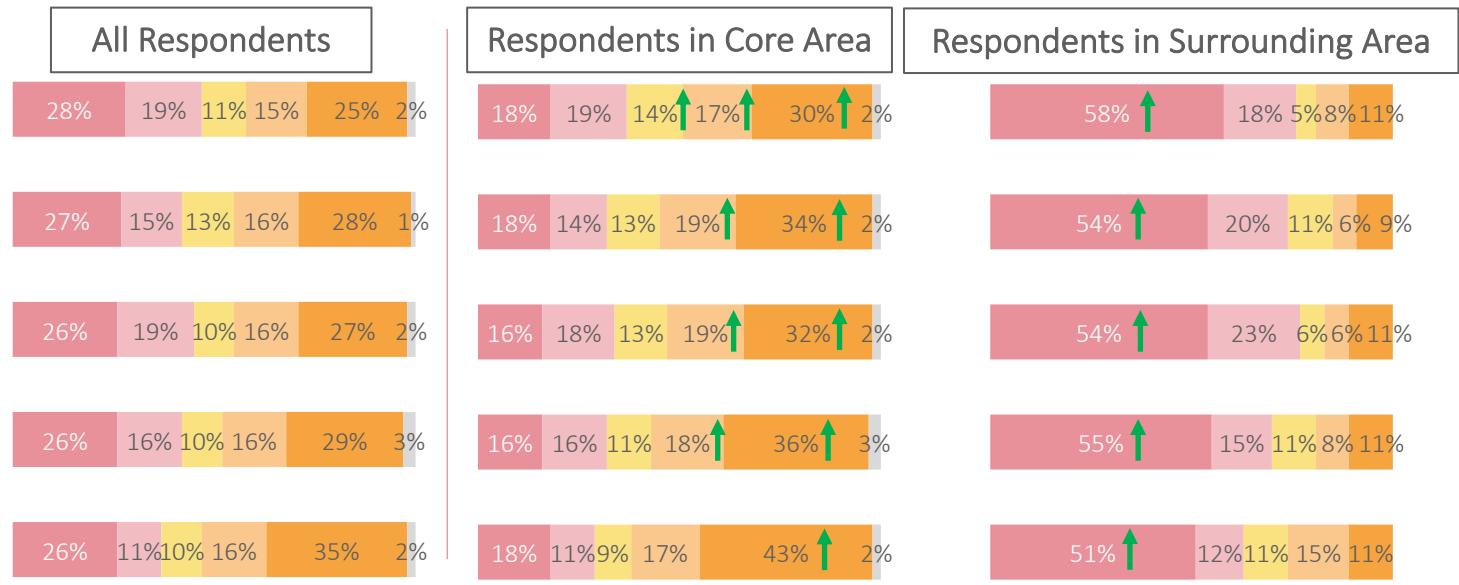
Will Initiatives Address Concerns?



Respondents in Core Area
Very/moderately effective 24%

Respondents in Surrounding Area
Very/moderately effective 70% ↑

Extent Initiatives Meet Needs



Legend: Very well (dark red), Somewhat well (light red), Neutral (yellow), Not very well (orange), Not at all (dark orange), Don't know (grey)

↑ Statistically significantly higher than the other subgroup @95% confidence level

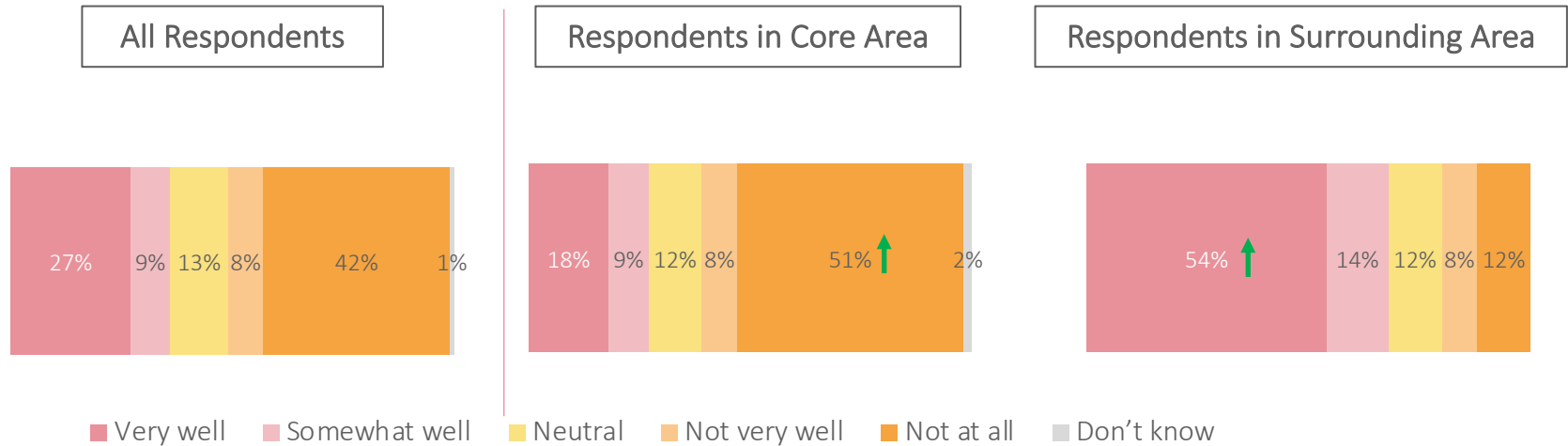
Base: All Respondents (n=428); Respondents in Core Area (n=318), Respondents in Surrounding Area (n=65)
 G1. Seaspan received the feedback on noise and is proposing to take a number of additional steps, described below. To what extent do these initiatives meet your needs?
 G2. In general, how effectively will these initiatives address concerns around Noise?

As with noise, this proposed mitigation had a split response based on location. Majority in core area remain opposed to the proposed drydock location, not even giving support to collaborate on exterior colour.

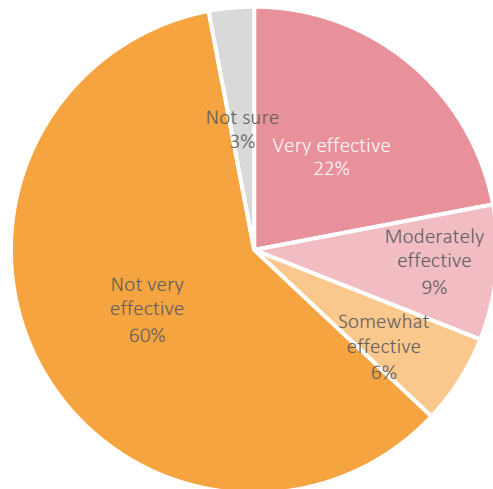
Views and Siting Proposed Mitigations

Extent Initiatives Meet Needs

Seaspan will engage with the City of North Vancouver and the local community, including Indigenous communities, to select the preferred exterior colour to best integrate the proposed new drydocks into the neighbourhood.



Will Initiative Address Concerns?



Respondents in Core Area
Very/moderately effective 21%

Respondents in Surrounding Area
Very/moderately effective 61% ↑

↑ Statistically significantly higher than the other subgroup @95% confidence level

Base: All Respondents (n=432); Respondents in Core Area (n=327), Respondents in Surrounding Area (n=65)

D1. Seaspan received the feedback on the siting of the new proposed drydock and work pontoon and is proposing to take a number of additional steps, described below. To what extent do these initiatives meet your needs?

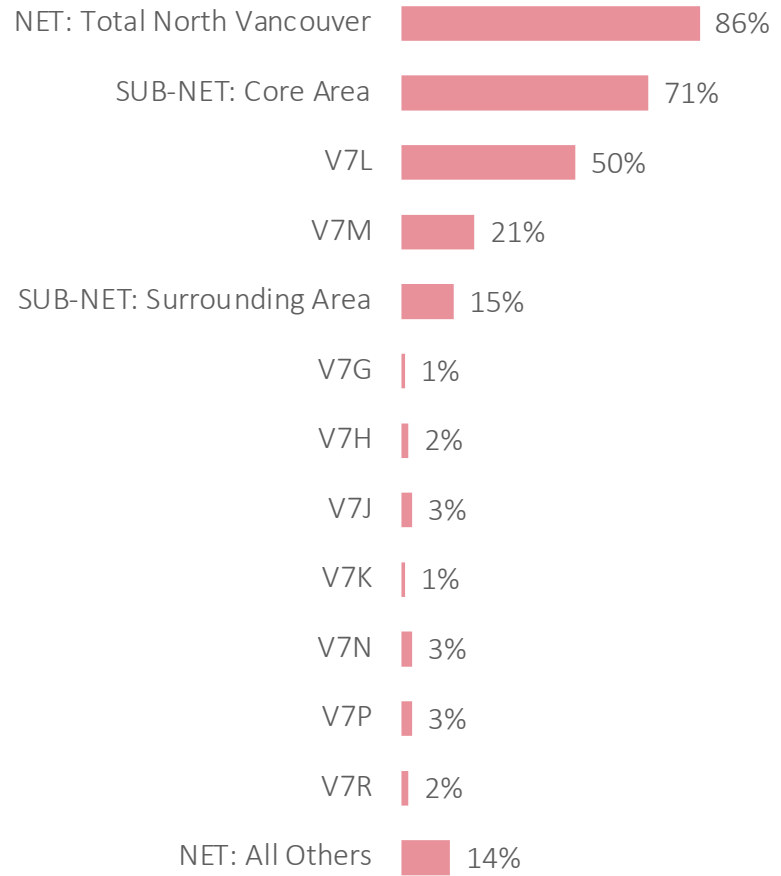
D2. In general, how effectively does this initiative address concerns around Views and Siting?



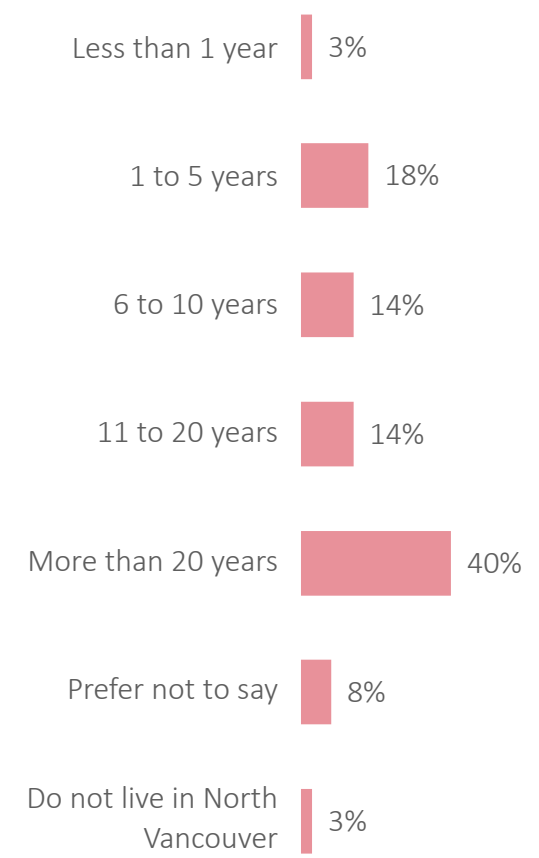
Profile: Who participated in this study?

Respondent Profile

Postal Code



Years live in North Vancouver



Base: All Respondents (n=652)

A1. To begin this study, help us understand where you live. What are the first three digits of your postal code?

Base: All Respondents (n=185)

J1. Do you live in North Vancouver? If yes, how long have you lived here?

Base: All Respondents (n=484)

Thank you

