Westport progress update and long-list of options
What is Westport?

- Westport is preparing a strategy to accommodate Perth and surrounding regions’ freight demand for the next 50 years and beyond.

- Focused on the ports at Fremantle, Kwinana and Bunbury, the roads and rail that deliver the freight, and the intermodal terminals required.

- Assessing solutions of all kinds, including operational changes (more off-peak operations, more freight on rail), new infrastructure and more.

- Balancing priorities of economic growth, sustainability and the environment.
Why is Westport necessary?

Planning takes time –
Westport is looking at future infrastructure requirements before they become urgent.

Current infrastructure will not meet long-term growth requirements.

Doing nothing is not an option.

Most shipping containers are filled with the products we use every day. The freight task will grow beyond existing capacity in parallel with the population growth.

Westport will:

• Provide certainty for local residents, government, industry and investors
• Protect transport corridors for the long-term
• Maximise economic development
• Devise an appropriate investment strategy
Best-practice frameworks

Independent peer review

ISOA
Infrastructure Sustainability Council of Australia

Australian Government
Infrastructure Australia

PIANC
The World Association for Waterborne Transport Infrastructure

KAART KOORT WAARNGINY
HEAD HEART TALKING
Engaging...

RISKWEST
Management Consultants

Sustainable Development Goals
Aboriginal engagement being led by Dr Richard Walley OAM (right), senior Noongar statesman.

- Working with Traditional Land Owner groups and other stakeholders
- Assessment of Aboriginal heritage sites
- Capturing the cultural narrative of Fremantle, Kwinana and Bunbury areas
- Aboriginal employment and economic development plan for Westport moving forward

Engagement has commenced at a high level and is in early stages, but will become more comprehensive and extensive once a shortlist is determined.
Who is providing input?

Taskforce Reference Group (over 90 organisations):
- Community groups
- Industry corporations
- Peak bodies, unions and member organisations
- State, Federal and Local Government agencies
- Universities and research institutions

Aboriginal groups and stakeholders

Organisations not on the Reference Group

Governance committees:
- Steering Committee
- Project Control Group
- Peer review panel
- Infrastructure Australia
- ISCA

General community:
- Local communities
- Broader WA community

Research:
- New independent research
- Past research
- Government modelling
- Private sector work
## Your feedback influences key priorities

<table>
<thead>
<tr>
<th>Variables</th>
<th>Non-negotiables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental</strong> offsets and win-win outcomes (e.g. seagrass regeneration)</td>
<td>Option must handle long-term <strong>container trade</strong> projections (3.8 million TEU by 2068)</td>
</tr>
<tr>
<td><strong>Social</strong> offsets and win-win outcomes (e.g. fishing access and infrastructure)</td>
<td>Study areas (Fremantle, Bunbury, Kwinana), scope and <strong>objectives</strong></td>
</tr>
<tr>
<td><strong>Amenity</strong> outcomes (e.g. beach access)</td>
<td>Economic / <strong>financial</strong> feasibility</td>
</tr>
<tr>
<td>Acceptable <strong>trade-offs</strong> and compromise</td>
<td><strong>Commercial</strong> / operational feasibility</td>
</tr>
<tr>
<td>Community <strong>tolerance</strong> levels for trucks, freight rail passings, safety, mobility</td>
<td>Use existing / available supply chain <strong>corridors</strong></td>
</tr>
<tr>
<td>Transition <strong>timings</strong> and staging</td>
<td><strong>Environment</strong> and heritage prioritised</td>
</tr>
<tr>
<td><strong>Innovative</strong> solutions</td>
<td><strong>Government</strong> makes <strong>final decision</strong></td>
</tr>
</tbody>
</table>
Community engagement

Understanding community concerns and priorities through consultation and feedback is a key focus for Westport:

• Digital and paper surveys
• Report consultation
• Events
• Interviews and focus groups
• Social values research

The Westport Beacon is providing frequent insights into the project’s work and outcomes, and key issues.

Based on nearly 600 comments received on Westport’s online interactive map.
Future-proofing the strategy

Westport is building an interactive, digital spatial tool that:

• Will allow you to visualise Westport’s strategy
• Is based on the latest, updatable datasets
• Allows the model to be updated as inputs change (new industries, trade changes)
<table>
<thead>
<tr>
<th></th>
<th>Eight Strategic Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Base Case</strong> (current situation for baselining)</td>
</tr>
<tr>
<td>2.</td>
<td>Optimise <strong>Fremantle</strong> and transition containers to <strong>Kwinana</strong> over time</td>
</tr>
<tr>
<td>3.</td>
<td>Optimise <strong>Fremantle</strong> and transition containers to <strong>Bunbury</strong> over time</td>
</tr>
<tr>
<td>4.</td>
<td>Move all containers to <strong>Kwinana</strong> ASAP</td>
</tr>
<tr>
<td>5.</td>
<td>Move all containers to <strong>Bunbury</strong> ASAP</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Fremantle</strong> and <strong>Kwinana</strong> both have containers for the long-term</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Fremantle</strong> and <strong>Bunbury</strong> both have containers for the long-term</td>
</tr>
<tr>
<td>8.</td>
<td>Only <strong>Fremantle</strong> has containers long-term</td>
</tr>
</tbody>
</table>
Stage 2 workstreams focused on:

1. Port operations and supply chain
2. Environmental
3. Economic development and land activities
4. Commercial (financial)
5. Defence
6. Social licence
7. Geospatial information systems (GIS)
8. Multi-criteria analysis (MCA)

- Cross-agency teams
- External expertise
- Robust risk management
- Independent peer review of all work
Multi-criteria analysis (MCA)

Identify options

- Analyse Westport’s Eight Strategic Options and identify a ‘long-list’ of potential infrastructure options.

MCA-1

- Analyse the ‘end state’ performance of the long-list using high level criteria to rank the options by overall performance.

Shortlist options

- Shortlist created with Westport’s governance teams based on outcomes of MCA-1.

Multiple MCAs

- ‘Mini MCAs’ used to identify best sub-components for various options.

MCA-2

- Develop transitions and timings for the shortlisted options.
- Analyse performance of the options using more detailed assessment criteria.

Economics

- Rapid cost-benefit analysis on the best performing options from MCA-2.

Preferred option/s

Consider potential future disruptors:
- New technologies impacting operations (i.e. transport innovations)
- New technologies impacting trade task (i.e. 3D printing)
- Global politics and economics
- New resources and industries
The following criteria will be used to differentiate and rank the long-list of 25 options:

<table>
<thead>
<tr>
<th>Economic</th>
<th>Environment</th>
<th>Governance &amp; Operations</th>
<th>Land Use</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Capital investment and land acquisition costs</td>
<td>• Terrestrial environment impacts</td>
<td>• Infrastructure capacity</td>
<td>• Port and transport corridor access</td>
<td>• Amenity impacts (e.g. beach access, community health and well-being, congestion)</td>
</tr>
<tr>
<td>• Operations and maintenance costs</td>
<td>• Marine environment impacts</td>
<td>• Scalability</td>
<td>• Land availability and complexity of acquisition</td>
<td>• Aboriginal and non-Aboriginal heritage</td>
</tr>
<tr>
<td>• Wider economic benefits (e.g. jobs growth, industry expansion)</td>
<td></td>
<td>• Operational efficiency</td>
<td>• Land use compatibility</td>
<td></td>
</tr>
</tbody>
</table>
Long-term container forecasts

Small increases in annual growth forecasts have huge cumulative impacts over time.

<table>
<thead>
<tr>
<th>Year</th>
<th>Containers (in million TEU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>0.5</td>
</tr>
<tr>
<td>2028</td>
<td>1.0</td>
</tr>
<tr>
<td>2038</td>
<td>1.5</td>
</tr>
<tr>
<td>2048</td>
<td>2.0</td>
</tr>
<tr>
<td>2058</td>
<td>2.5</td>
</tr>
<tr>
<td>2068</td>
<td>5.5</td>
</tr>
</tbody>
</table>

- **5.47 million TEU** (4% annual growth)
- **4.3 million TEU** (3.5% annual growth)
- **3.37 million TEU** (3% annual growth)
- **3.1 million TEU** (2.8% annual growth)

**770,000 TEU** in 2018

**TEU = twenty-foot equivalent unit (i.e. one container)**

2068 is Westport’s 50-year end-state
25 long-list options

- 4 in Fremantle
- 4 in Bunbury
- 17 in Kwinana
Fremantle | 4 long-list options

Two stand-alone port options handling 3.8 million TEU by 2068:
- Expanded port footprint
- Expanded roads and rail, incl. new infrastructure

Two shared-port options handling 1.2 million TEU by 2068:
- Existing port footprint
- Minor road and rail upgrades

Fremantle Inner Harbour current state
Bunbury | 4 long-list options

Two stand-alone port options handling 3.8 million TEU by 2068:
- Significantly expanded port footprint
- Expanded roads incl. Bunbury Outer Ring Rd
- One option fully reliant on trucks
- One option reliant on rail (requires duplication of South West Main line and gauge separation)

Two shared-port options handling 2.6 million TEU by 2068:
- Same as above, but slightly smaller port footprint
Kwinana | 17 long-list options includes:

- **9 stand-alone** port options that can handle full container task of 3.8 million TEU
- **8 shared-port** options that can handle up to 2.6 million TEU (shared with Fremantle)
- **11 port options in the north** serviced by Rowley Road (2 connect to land north of the Shacks, 9 connect to land south of the Shacks)
- **6 port options in the south** serviced by Anketell Road (connect to land at the KIA between Kwinana Bulk Jetty and Alcoa)
- No options further south of the Kwinana Industrial Area (KIA)
Kwinana | 17 long-list options includes:

- **10 conventional** port options – island (5), land-backed (4) or hybrid (1)
- **7 light footprint** port options, serviced by an intermodal terminal at Latitude 32. Containers are moved from port to Lat32 by rapid automated vehicles
- Supply chain split varying between options from **66% road / 34% rail** to **83% road / 17% rail**
- Expanding the road links (Rowley and Anketell) to the Outer Harbour are already in planning by Main Roads, independent to Westport

Example of a light footprint port: Terminal Teluk Lamong – Surabaya, Indonesia
Communicating our findings

**Report 1:** Preparing for the Strategy
- December 2017

**Report 2:** What you have told us
- April 2018

**Report 3:** What we have found so far
- December 2018

**Westport Beacons**
- Throughout 2019

**Westport’s recommendations**
- Late 2019
Have your say, stay up-to-date

• Subscribe to our mailing list to receive the Westport Beacons and Project Updates

• MySayTransport (right)
  – mysaytransport.wa.gov.au/Westport

• Westport website
  – Transport.wa.gov.au/Westport
Thank you for your interest.