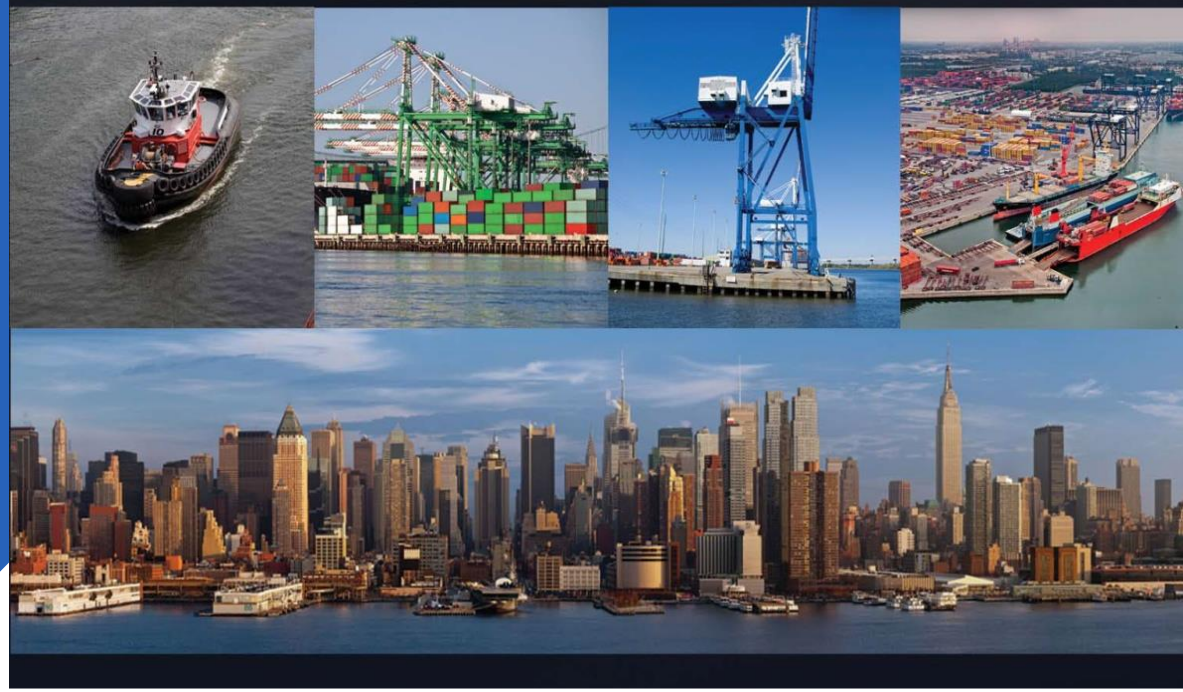
U.S. Department of Transportation

Maritime Administration

AAPA American Association of Port Authorities

Port Planning and Investment Toolkit



Toolkit Update

November 2015

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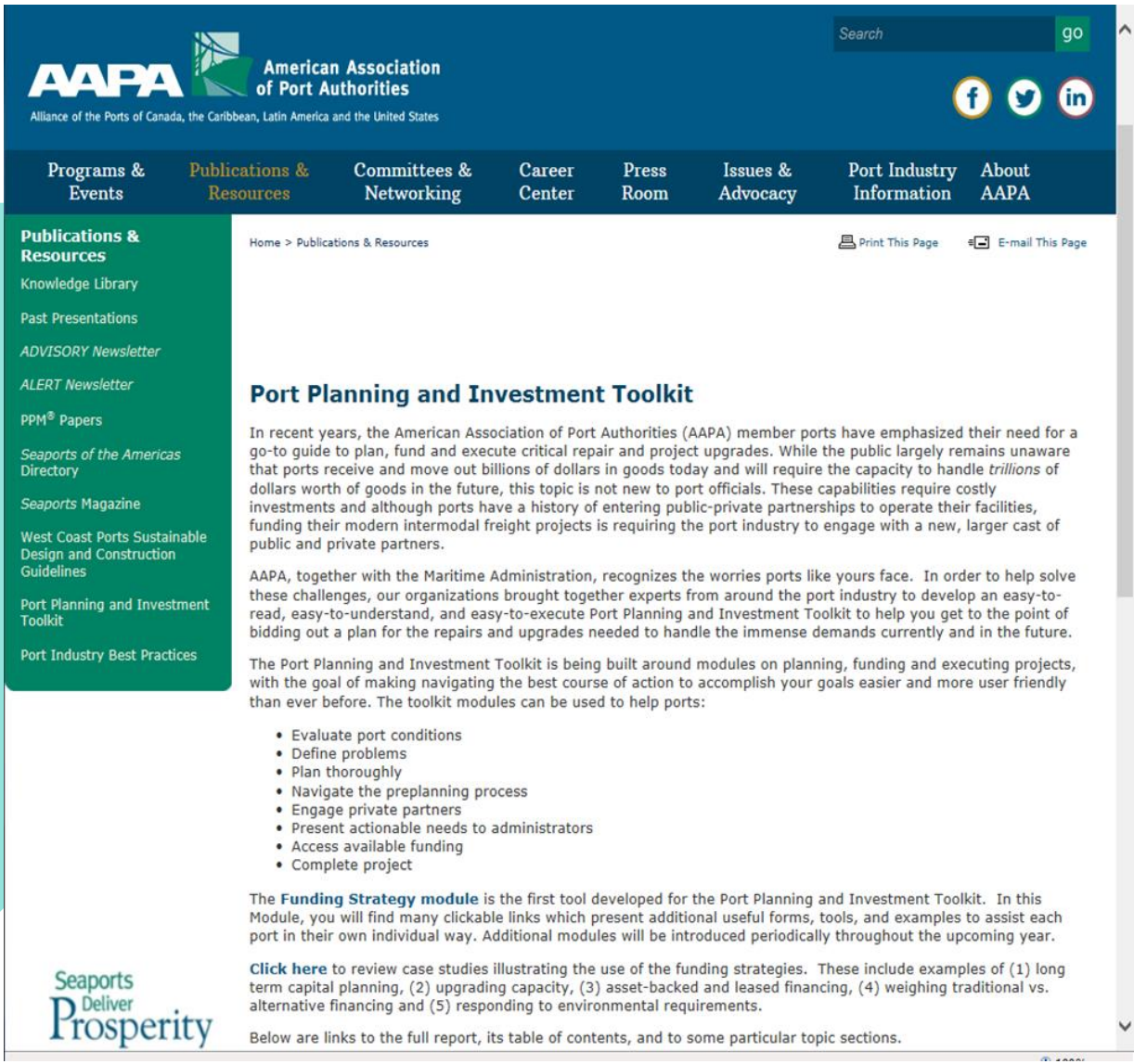
Port Planning and Investment Toolkit (PPIT)

- Cooperative agreement between AAPA and MARAD
- Develop PPIT to help ports with developing “investment-grade” project plans to attract public and private investment



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Port Planning and Investment Toolkit (PPIT)

PPIT is envisioned to inform and guide:

- Developing capital plans that clearly identify future needs;
- Determining the most cost-effective, sustainable and efficient solutions to port challenges;
- Positioning port projects for federal funding such as TIGER grants; and
- Getting port infrastructure projects into MPO and state transportation programs to qualify for other government funding;
- Obtaining private sector funding to support their infrastructure projects.

PPIT Working Groups

Initial Pool of Volunteers

- Led by:
  - Jean Godwin – AAPA
  - Lauren Brand – MARAD
  - Stephen Shafer - MARAD
- **64** Port Staff & Consultant Volunteers
- Port Staff, Consultants, PPMs and PPM Candidates

Table of Contents Working Group

- **14** Volunteers
- Multiple areas of expertise

Funding Module Working Group

- **16** Volunteers
- Primarily finance and accounting experts

Planning & Feasibility Modules Working Group

- **9** Volunteers
- Primarily marketing, engineering/planning and economic experts

Previously Completed Module 3: Funding

- Module 3: Funding was the first PPIT tool component prepared
- Completed in October 2014 by The PFM Group
- Analytical Tools, Guidance and Project Profiles on strategies and best practices for funding and financing major port capital improvements

it is important for a port and its advisors to be involved in the process of developing and reviewing these projections/reports with an emphasis on credit standards in order to ensure that access to financial markets and partners is achievable for the project.

The feasibility screening tasks outlined in Exhibit 3.2 are overlapping and iterative as capital cost, demand & revenue, and operating & maintenance assumptions as well as market conditions inevitably change. The output from this feasibility assessment can be used to determine if a port should proceed with the project as planned, modify the project requirements to meet market demand and cost limitations, or to discontinue the project altogether.

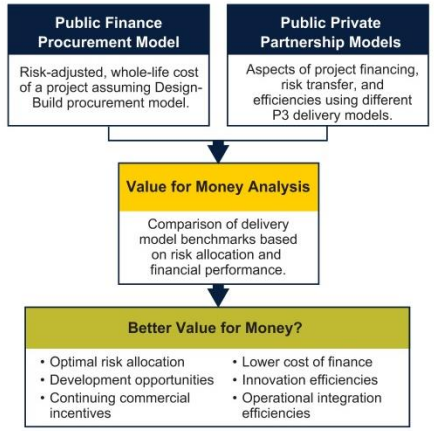
3.3. Risk Analysis

The port and other project team members should develop and evaluate risk factors that could impact the viability of the project. Key inputs to the development of the financing options will be the results of the demand & revenue forecasts, operations & maintenance costing effort, definition of project construction schedules and annual costs and renewal and replacement needs. As such, these inputs should be evaluated to determine potential deviations from estimates. The major elements of this phase of work effort include:

- Define project financing risks and evaluation criteria/measures in order to craft and assess the impact to financial scenarios
- Use risk adjusted demand & revenue forecasts, operations & maintenance cost estimates and construction cost/implementation schedules to test and refine alternative financing strategies
- Identify stress points in the project pro forma cash flow due to the sensitivity analysis
- Develop credit rating and investor risk mitigation strategies and incorporate the same into the plan of finance
- Identify a short list of mitigating financial strategies with key decision makers and project team members

For smaller capital improvement program financings that fit within a port's overall system financing structure, risk analysis may be limited if system net revenues are clearly sufficient to support additional debt service requirements. That is, the risk analysis may be limited to system wide strains on net revenues or an evaluation of how present day financing fits into the system plan of finance if future capital needs are on the horizon, all of which can be analyzed via a port system cash flow model approach. Alternatively for large project developments, all risk assessments and sensitivity scenarios should be evaluated primarily through a project finance model. Many infrastructure investors advocate Value for Money ("VfM") analysis to evaluate project risks, and VfM is used in USDOT major project financial plans. VfM "prices" risk by producing a discounted net present value amount that represents the aggregate impact of the various sensitivities. An assessment of VfM for P3 procurements is a comparative concept, and as such most delivery agencies seek to use a "public sector comparator" approach to evaluating VfM, as shown in Exhibit 3.3.

Exhibit 3.3 Value for Money Public Comparator Approach



Approach for Toolkit Completion

Three step process:

1. Review/consider relevant examples
2. Develop Module 1
3. Develop Module 2
4. Integrate toolkit documents

Port Industry Working Group

Tasks:

- Project Initiation
- Working Group Coordination
- Planning/Feasibility Data Collection and Research
- Development of Planning Module 1
- Development of Feasibility Module 2
- Toolkit Document Consolidation

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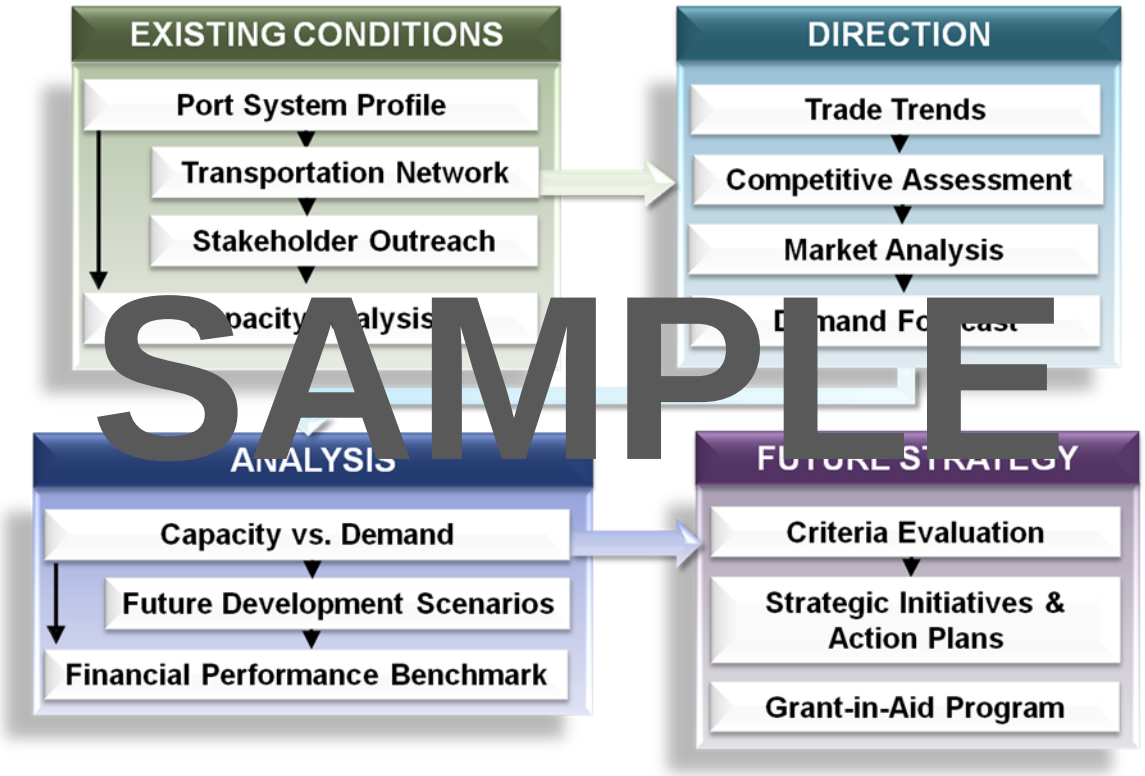
Module 1: Planning

- Setting Goals & Objectives
- Existing Conditions (infrastructure, equipment and capacity)
- Identifying Project Drivers (market analysis, cargo forecasts)
- Quantifying Needs/Requirements
- Planning Options
- Estimating Impacts and Costs (CapEx and OpEx)
- Define Recommended Project
- Evaluating Options (in parallel with Feasibility Assessment)
- Project Recommendation and Phasing
- Stakeholder Outreach



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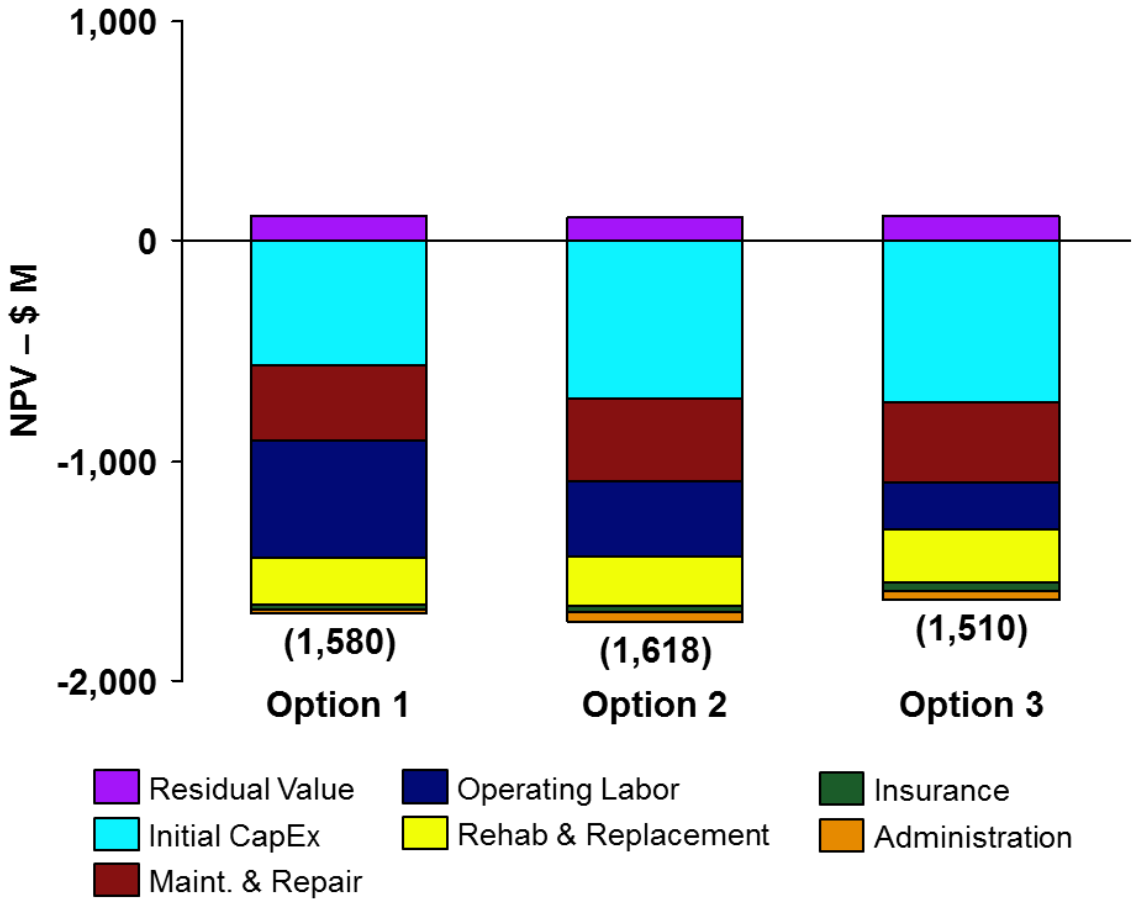
Module 2: Feasibility

- Business Strategy (asset development and revenue/cost schedules)
- Risk Assessment (register and mitigation strategy)
- Financial Performance (rate of return/NPV)
- Economic Impact (employment, benefit cost, local/state/national impacts)



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Appendices

- Project Profiles/Case Studies
- Toolkit Checklist
- Financial Model Sample
- Helpful Resources
  - Manuals and Guides
  - RFQs and Scopes of Service
  - Strategic/Master Plans
  - Feasibility Studies
  - EIS/EIR Documents
- Glossary of Terms

Resource Type	Title	Author	Sponsor	Sponsor Type	Year	Project Location	Project Type	Link
Strategic/Master Plans	Compilation of Data and Recommendations for Port of Fort Pierce Master Plan Update	AECOM	Florida Department of Transportation Distric Four	Public	2013	St. Lucie County, Florida	Port-wide	http://www.stlucieco.gov/pdfs/FtPierce_Sept2013_final.pdf
Strategic/Master Plans	Jacksonville Port Authority: Strategic Master Plan	Martin Associates	Jacksonville Port Authority	Public	2013	Jacksonville, Florida	Port-wide	http://www.jaxport.com/sites/default/files/images/Jaxport%20Strategic%20Plan%20Final.pdf
Strategic/Master Plans	Port of Longview Strategic Plan		Port of Longview	Public	2012	Port of Longview, Washington	Port-wide	http://www.portoflongview.com/Portals/0/Documents/Strategic%20Plan/_FINAL%20ADOPTED%207-13-12.pdf
RFQs and Scopes of Service	RFQ: Professional Consulting Services for Strategic Planning Process and Strategic Business Plan Development		Oregon International Port of Coos Bay	Public	2013	Coos Bay, Oregon	Port-wide	http://portofcoosbay.com/rfq/rfqstratbizplan2013.pdf
RFQs and Scopes of Service	Scope of Services for Port of Fort Pierce Master Plan		Joint Center	Public	2001	St. Lucie County, Florida	Port-wide	http://www.stlucieco.gov/pdfs/portscope.pdf
RFQs and Scopes of Service	Scope of Work 2014 Marine Hwy Feasibility Study for June 2015 to June 2016	USDA Rural Development	REAP Investment Fund, Inc.	Public	2015	Lake Sakakawea, North Dakota	Marine Highway Facility	http://reapmatters.org/wp-content/uploads/2015/05/Marine-Hwy-Scope-of-Work-FY-14.pdf
Manuals and Guides	Guidance on the Preparation of Port Master Plans	Department for Transport	Department for Transport	Public	2008	United Kingdom	Port-wide	http://infrastructure.planningportal.gov.uk/wp-content/ipc/uploads/projects/TR030001/2.%20Post-
Manuals and Guides	Leading Practice: Port Master Planning Approaches and Future Opportunities	Ports Australia with Sprott Planning and Environment Pty Ltd.	Ports Australia	Public	2013	Australia	Cruise Terminal	http://www.portsaustralia.com.au/assets/Publications/Master-Planning-Report-Final-low-res.pdf2
Manuals and Guides	Comprehensive Plan Guideline for Washington's Public Ports	Transportation & Infrastructure Committee	Washington Public Ports Association	Public	2009 update	Washington	Port-wide	http://washingtonports.org/wp-content/uploads/2013/01/Comprehensive-Plan-Guidebook1.pdf
Feasibility Studies	Preliminary Feasibilty Study for Container Terminal 10 at Southwest Tsing Yi	AECM Asia Co. Ltd.	Government of the Hong Kong Special Administrative Region	Public	2014	Hong Kong	Container Terminal	http://www.mic.gov.hk/docs/AS01-1.5B%20EN%20(Final)%20Jan%202014.pdf
Feasibility Studies	Inland Port Feasibility Study	Tioga Group	Southern California Association of Governments	Public	2008	Southern California	Inland Port	http://tiogagroup.com/docs/Tioga_Grp_SCAGInlandPortReport.pdf
Feasibility Studies	Study to Determine the Feasibility of a Cruise Ship Berthing Facility	Ports & Maritime Group, Int.	Catalina Island Chamber of Commerce		2011	Avalon, California	Cruise Terminal	http://www.catalinachamber.com/mediafilming/whats-new/cruiseshipfacility
EIS/EIR Documents	Pier S Marine Terminal + Back Channel Improvements Project	AECOM	Port of Long Beach	Public	2012	Long Beach, California	Multi-use Terminal	http://www.polb.com/environment/docs.asp
EIS/EIR Documents	Eagle Rock Aggregate Terminal Project	Aspen Environmental Group	Port of Long Beach	Public	2013	Long Beach, California	Dry Bulk Terminal	http://www.polb.com/environment/docs.asp
EIS/EIR Documents	Jordan Cove Energy and Pacific Connector Gas Pipeline Project Draft EIS	Federal Energy Regulatory Commission	Jordan Cove Energy Project	Private	2014	Coos Bay, Oregon	Energy Improvement	https://www.ferc.gov/industries/gas/enviro/eis/2014/11-07-14-eis.asp

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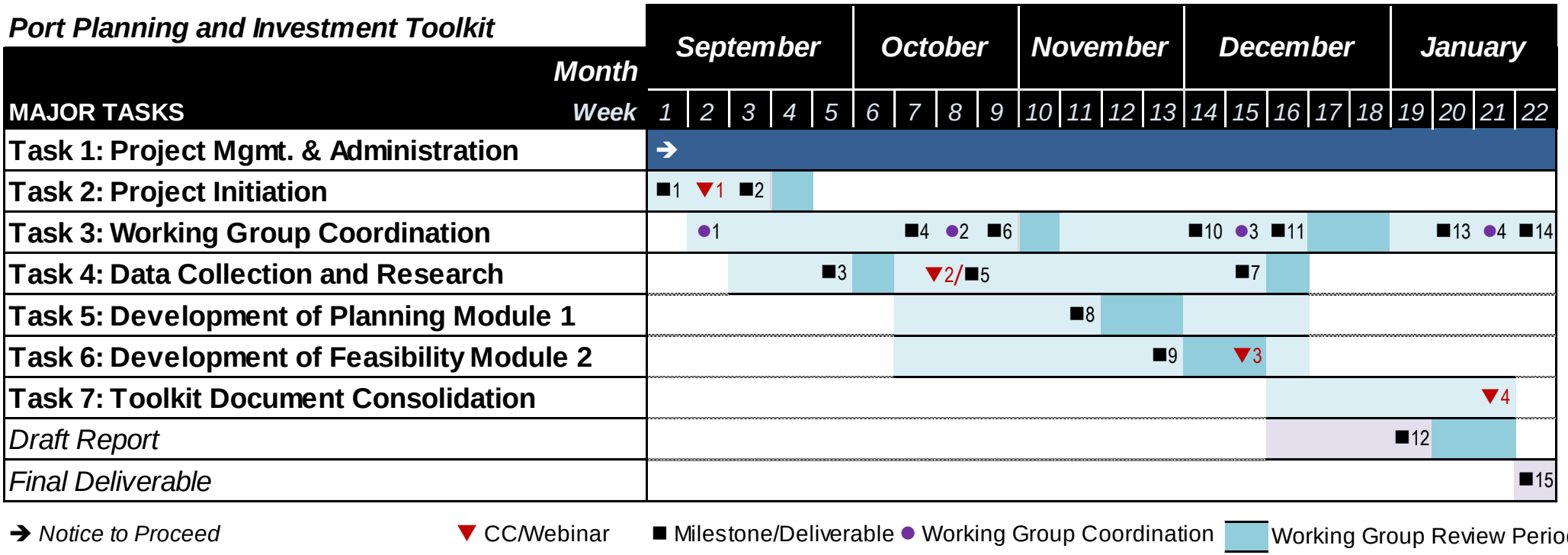
Schedule



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March 2016 Update

- Update on Completed PPIT
- AAPA Infrastructure and Finance Seminar
  - San Diego, CA
  - March 9-10, 2016
  - Marriott – Gas Lamp Quarter

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