TACOMA TIDEFLATS

SUBAREA PLAN ENVIRONMENTAL IMPACT STATEMENT APPENDICES

DRAFT EIS

APRIL 2024

Prepared by

CITY OF TACOMA, WASHINGTON

PUYALLUP TRIBE of INDIANS

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Pierce County

FIFE WASHINGTON

Port of Tacoma

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APPENDIX A Tideflats Subarea Work Plan

TIDEFLATS SUBAREA PLANNING WORK PLAN

February 10, 2019

I. Vision

This work plan (Work Plan) recognizes that the Tacoma Tideflats and adjacent areas are of great significance to Tacoma, the Puyallup Tribe, the Port of Tacoma, Pierce County, Fife, and the entire region and State for reasons of heritage, environment, economics, employment, and the preservation, protection and enhancement of natural and cultural resources.

The intent of this Work Plan is to provide a clear framework for cooperation and information sharing among the City of Tacoma, the Puyallup Tribe, the Port of Tacoma, Pierce County, the City of Fife while respecting Tacoma's jurisdiction, role as SEPA lead agency, and existing substantive and procedural obligations under the Growth Management Act, Shoreline Management Act, State Environmental Policy Act (SEPA), and the Tacoma Municipal Code.

The Work Plan also follows the intent of the Intergovernmental Agreement (IGA) between the Port of Tacoma, the Puyallup Tribe and the City of Tacoma concerning cost sharing for the Subarea Planning in the Tacoma Tideflats (IGA) as executed on November 14, 2018. The IGA calls for participation by two additional governments, Pierce County and the City of Fife. By participating in this Work Plan, the City of Tacoma, the Puyallup Tribe, the Port of Tacoma, Pierce County, and the City of Fife do not waive any existing legal rights or responsibilities the governments otherwise possess or may assert with respect to this subject matter, to include consultation with the Puyallup Tribe or collaboration with the Port.

As stated, and agreed to in the IGA, overarching themes to the Work Plan will include:

- Economic Prosperity for All
- Environmental Remediation and Protection
- Transportation and Capital Facilities Plan
- Public Participation and Outreach

Subarea planning allows for the establishment of a shared, long-term vision, and a more coordinated approach to development, environmental review and protection, and strategic capital investments in a focused area. Completion of a subarea plan will support the ongoing eligibility for and prioritization of transportation funding in the Port of Tacoma Manufacturing and Industrial Center, and a well-developed plan for the Tideflats will provide great regional benefit. In addition, subarea planning meets the requirements of the State Growth Management Act which mandates that local

comprehensive plans comply with VISION 2040, and directs local jurisdictions having one or more regionally designated centers to prepare a subarea plan for each.

The following Work Plan addresses the timeline for the project, the project budget, expected deliverables and general outcomes, and a process for input and outreach, all as contemplated in the Intergovernmental Agreement signed by the City of Tacoma, the Puyallup Tribe and the Port of Tacoma.

II. Timeline

The goal is to complete the Plan within two (2) years from the date of the commencement of consultant work. However, the Agreement will continue until the Plan is completed.

III. Funding

The project budget will be $1,200,000 to complete the Subarea Plan, supporting analyses, and the Programmatic Environmental Impact Statement. Funding for the project will be provided as follows:

- The Port agrees to provide up to $500,000
- The City agrees to provide up to $500,000
- The Tribe agrees to provide up to $200,000

These funds will be used for securing outside consultant services for the project, recognizing that each of the Funding Partners will also commit appropriate staff resources to assist with this project. In recognition of the Puyallup Tribe's grant funding source, at least $200,000 of the total funding will be focused on transportation-related issues.

The project will utilize the City's procurement and invoicing process. The City will coordinate payment of invoices to the consultants. On a quarterly basis, the City will furnish all consultant invoices and an associated milestone report to the Puyallup Tribe, and the Port of Tacoma, for their proportional share of the quarterly expenses. Proportional share Payment is due within 30-calendar days of invoice but shall not exceed the maximum of each government's established funding limit. Any additional costs of participating in this Work Plan shall be borne separately by each participating government.

IV. Anticipated Outcomes

The Work Plan process is expected to culminate in adoption of a Subarea Plan by the Tacoma City Council, as an element of the City's Comprehensive Plan, as well as potential text and map amendments to other elements of the City's Comprehensive Plan and amendments to the City's Land Use Regulatory Code, zoning districts, Shoreline Master Program, and Capital Facilities Program, including, but not limited to:

1. The Subarea Plan will protect the fisheries and shellfish resources that are essential to the tribe both culturally and economically and shall support continued growth of the regional economy and the currently estimated 29,000 existing family-wage jobs in the maritime, manufacturing and industrial sectors, the provision of infrastructure and services necessary to support these areas, and the important role of the Tideflats area as an economic engine for the City of Tacoma, Pierce County, state, and the region while protecting the livability of surrounding areas.

2. The Subarea Plan will support and consider transportation and infrastructure that promotes connectivity to other regional employment centers and will provide reasonably efficient access to the core area through transportation corridors to include freight.

3. The Subarea Plan will establish environmental improvement goals for Commencement Bay, including providing for greater bay-wide diversity of ecosystems, restoration of historic functions and improvement of physical conditions to protect and enhance environmental and cultural resources.

4. The Plan will ensure the ability of the participating governments to compete effectively for grant funding.

5. The Plan will support, protect, and improve health and safety of area employees and residents of surrounding communities.

6. The Subarea Plan will be consistent with Tacoma's adopted planning policies and goals, as well as state, regional, and federal law, policies, and regulations.

7. The Subarea Plan will retain sufficient planning flexibility to secure emerging port and manufacturing/industrial opportunities and other economic opportunities.

8. The Subarea Plan will result in process improvements that will streamline Tideflat project permitting and environmental review and will provide predictable mitigation measures.

9. The Subarea Plan will materially preserve the area and boundaries of the Port of Tacoma Manufacturing and Industrial Center and will support resiliency strategies to prevent loss of manufacturing/industrial lands, transportation infrastructure, and environmental resources.

10. The Subarea Plan will promote and support opportunities for voluntary, proactive inter-jurisdictional plans and projects to clean up environmentally contaminated sites within the Tideflats.

11. The Subarea Plan will define and protect the core areas of port and port related manufacturing/industrial uses within the city. The Subarea Plan will resolve key land use conflicts along the edges of the core area, and minimize and mitigate, to the extent practicable, uses that are incompatible with industrial uses along the edge of the core area. The Subarea Plan will evaluate the use of transitions and buffers as a means of addressing compatibility with surrounding communities.

12. The Subarea Plan will be consistent with treaty-protected rights.

V. Plan Elements

The Subarea Plan, at a minimum, will address requirements under Washington State law to include State Environmental Policy Act (SEPA) environmental review, Growth Management Act (GMA), Shoreline Management Act (SMA), the Puyallup Land Claims Settlement, the Container Port Element and elements for certification of a Manufacturing and Industrial Center (MIC) by the Puget Sound Regional Council (PRSC). The following non-exclusive list of elements represent the required

checklist as well as issues identified by the participating governments:

Plan Concept or Vision	• Preservation of industrial land base • Economic role of the Manufacturing and Industrial Center • Relationship to Comprehensive Plan • Relationship to adjacent areas
Environment	• Protection of sensitive areas • Stormwater management • Air pollution and greenhouse gas emissions • Contaminated soils • Environmental risks and hazard areas, including sea level rise • Opportunities for proactive environmental remediation
Land Use	• Employment growth targets • Description of appropriate industrial and manufacturing uses • Incompatible land uses • Buffers for industrial uses and appropriate transitions • Mitigation of aesthetic impacts
Economy	• Economic development and growth strategies • Maintain and expand family wage jobs • Key sectors and industry clusters
Public Services and Facilities	• Capital plans and investments to meet targeted employment growth • Safety and Emergency Response
Transportation	• Freight movement • Employee commuting • Transit and mode splits • Priority projects • Financing strategy • Design standards
Implementation Actions	• Zoning and Code Amendments • Programs • Funding Strategies • Other

The following supporting analyses will underpin the development of goals, policies, and implementation strategies:

- Existing Conditions Analysis
- Industry Sector Market Analysis, Economic Impact Analysis, and Industrial Lands Supply Analysis
- Emergency Response/Risk Assessment
- Sea Level Rise Modeling and Probability Assessment
- Programmatic Environmental Impact Statement
- Port Comprehensive Scheme of Harbor Improvements and Strategic Plan

In accordance with the Growth Management Act, the Plan will be a component of the City's State-mandated Comprehensive Plan. Therefore, the legislative process for the development and adoption of the Plan shall follow the procedures outlined in the Tacoma Municipal Code, as well as the standards of the Growth Management Act, Shoreline Management Act, SEPA, Container Port Element and other applicable requirements, and as supplemented herein.

VI. Subarea Plan Process Governance

The roles and structure outlined below will address governance through the Subarea Plan Process. In order to promote an inclusive process to consider the input of all five participating governments, the City of Tacoma will look to the Steering Committee to review and guide the Subarea Plan process with input from the Public through the Public Engagement Plan and the Stakeholder Advisory Group. This review and guidance will culminate in a Steering Committee proposal for the Draft Subarea Plan.

A. Steering Committee

1. The Steering Committee shall consist of two elected leaders, and alternates (elected officials), from each participating government as outlined in the IGA (Intergovernmental Agreement). The governments that are members of the Steering Committee include City of Fife, City of Tacoma, Pierce County, Port of Tacoma and the Puyallup Tribe. The subarea planning process will include regular consultation and information sharing with, and advice from, the Steering Committee.

2. Meetings of the Steering Committee are subject to the Open Public Meetings Act with its requirements for public notice and the Public Records Act.

3. The Steering Committee will meet with the Staff Leadership Team and the Project Management Team to review the project budget and draft deliverables, provide guidance for policy decisions, and to facilitate mutual understanding and a closer alignment of interests across jurisdictions throughout the Subarea Plan process. Upon the conclusion of each Steering Committee meeting where a decision or direction has been given by the whole, an action memorandum will be issued to members documenting all agreements by the Steering Committee. At the outset of the Subarea Plan process, the Steering Committee may meet monthly. As the process progresses, the Steering Committee will meet based on project milestones or at least on a quarterly basis.

4. The Steering Committee will meet, as necessary, to conduct business. Approval by the Steering Committee shall be three or more governments concurring on a matter related to a current milestone. If a meeting of the Steering Committee is necessary for approval or concurrence on a recommended action, any member can call for the meeting. The meeting

must take place within 30-calendar days of the call. Such meeting will be scheduled to not conflict with any participating government's regular meeting schedule. Full participation is intended, but the meeting may be held with the attendance of representatives of three or more governments. If Steering Committee Members, due to travel or other constraints, cannot participate in person, then participation may be by video conferencing (e.g. Skype, Zoom, etc.), by telephone or by participation of a designated alternate (elected official). The position of all governments participating in the decision will be recorded. All participating governments will have the opportunity to offer comment jointly or separately within the same 30-calendar day period for final decision. If no approval vote occurs within the 30-calendar day inter-governmental comment period, the decision moves to the Tacoma City Council's normal process.

5. The Steering Committee will make a final proposal of a Subarea Plan to the City of Tacoma for use of the City of Tacoma Planning Commission and City Council.

B. Staff Leadership Team

1. The Staff Leadership Team will provide an additional depth of talent, judgement and people in senior level positions to enhance this planning process. They will have a role advising both the Project Management Team and the Steering Committee.

2. The Staff Leadership Team will consist of a combination of management, legal, and intergovernmental staff representatives designated by each participating government.

3. The Staff Leadership Team will have the responsibility to advise the Project Management Team and is responsible for raising issues and topics to be brought before the Steering Committee during the Subarea Plan planning process. Each government shall designate one of its Staff Leadership Team members to serve as an initial point of contact for communication among the Staff Leadership Team Members. This person can call for a meeting of the Staff Leadership Team to address an issue(s) specific to the Subarea Plan process milestone under consideration. In addition, the Staff Leadership Team will meet at the Subarea Plan development milestone points as identified in Section IX below.

4. At various stages of the Subarea Plan development, the Staff Leadership Team will review with the Project Management Team, decision points where the Steering Committee will need to review project progress or make policy decisions. The Subarea Plan process will foster alignment amongst the participating governments for the final Subarea Plan proposal. All participating governments will have the opportunity at significant milestones and decision points to offer a written position, whether in agreement or not, on a direction or recommendation taken. Participating governments may offer comment jointly or separately.

C. Project Management Team

1. The Project Management Team shall be comprised of a designated staff person from each participating government. This staff person will act as the Project Lead for each government and shall be the primary point of contact. The City of Tacoma Staff Lead will act as the Project Manager for the planning process, in coordination with the Project Management Team.

2. The role of the Project Management Staff Lead is to review consultant deliverables, to coordinate intra-governmental review, and to provide timely and consolidated response to

requests for comments to ensure an efficient and effective process.

3. The Project Management Staff Leads shall act as liaisons to the Staff Leadership Team, Stakeholder Advisory Group, and the Steering Committee and will have the opportunity to participate and present in those meetings. The Project Management Team and its members will have the responsibility for communicating with the Staff Leadership Team so it can best fulfill both of its responsibilities and help expedite the process. They are expected to participate actively throughout the planning process. However, lack of participation by a Staff Lead will not delay overall Plan progress.

4. The goal is for the Project Management Team to work together to identify areas of intergovernmental agreement, policy options for Steering Committee consideration, to ensure that information is complete and accurate, and to ensure that each Government's perspectives are represented throughout the process.

VII. Project Initiation

Once the Subarea Plan Process or Work Plan is approved by the Steering Committee, Project Development will initiate.

VIII. Project Development

The initial steps of the Subarea Plan process include:

A. Consultant Selection

1. The Project Management Team will prepare the consultant scope, review consultant proposals, and will consult with Staff Leadership Team throughout the consultant selection process.

2. Each participating government will have the opportunity to participate on the Consultant Selection Team.

3. The Project Management Team will recommend consultant selection(s) to the Steering Committee.

4. Steering Committee will meet to review the Project Management Team recommendation and consider a recommendation to City of Tacoma City Council. Approval by City Council is necessary due to the financial limits involved.

5. City Council will make final decision by Resolution, including contract approval. The expected two-year Subarea Planning period begins once the contract has been executed.

B. Stakeholder Advisory Group

1. The Stakeholder Advisory Group will provide input and feedback as a "sounding board" for the Subarea Planning Process and the City during their respective parts of the process. The

Stakeholder Advisory Group members will also serve as liaisons to the broader stakeholder groups they represent. Stakeholder Advisory Group meetings will be open to the Public but will not receive public comment.

2. The Stakeholder Advisory Group will number no more than twenty-one individuals. The composition of the Stakeholder Advisory Group will consist of the affected communities and perspectives listed below. Some of the stakeholder members will be selected by governments, associations or organized councils. These organizations will be asked to self-select a representative to participate in Stakeholder Advisory Group meetings and supporting activities.

3. The communities and perspectives are identified here:

   Adjacent Jurisdictions
   - City of Lakewood (Self-appointed)
   - City of Sumner (Self-appointed)
   - Joint Base Lewis McChord (Self-appointed)

   Neighborhoods
   - Northeast Tacoma Neighborhood Council (Self-appointed)
   - New Tacoma Neighborhood Council (Self-appointed)
   - South Tacoma Neighborhood Council (Self-appointed)

   Business & Industry
   - Port Tenant (Port appointed)
   - Tideflats Industrial/Non-Port Property (Fife appointed)
   - Energy Company (Self-appointed)
   - Fredrickson Industrial Group (County appointed)

   Labor
   - ILWU Local 23 (Self-appointed)
   - Pierce County Building and Construction Trades Council (Self-appointed)

   Environmental
   - Wildlife Representative (Tribe appointed)
   - Air Quality Representative (Tacoma appointed)
   - Water Quality Representative (Port appointed)
   - Climate Change Resiliency (Tribe appointed)

   Regional Economic
   - Tacoma/Pierce County Chamber of Commerce (Self-appointed)
   - Tacoma/Pierce County Economic Development Board (Self-appointed)

   General
   - Transportation (Fife appointed)
   - Other to achieve balance (Tacoma appointed)
   - Other to achieve balance (County appointed)

4. Each participating government will have the opportunity to appoint two representatives to the Stakeholder Advisory Group (as noted above). The appointments will follow each government's appointment process and each government's appointment will be considered a final decision. The other governments will accept each governments appointee(s). The governments have identified broad stakeholder categories with distinct representatives within

each. Each government will appoint a representative to match the specific defined category. The agreed upon goal is to maintain equity among the governments and balance the interests among the Stakeholder Advisory Group.

5. These self-selected and government appointed representatives will be recorded by the Project Management Team, reviewed by the Staff Leadership Team and then, presented to the Steering Committee as the Tideflats Subarea Plan Stakeholder Advisory Group.

6. A schedule for the Stakeholder Advisory Group will be determined based on the project plan and milestones.

C. Technical Advisors

1. Technical advisors, including representatives from various local, regional, and state agencies, may be invited by the Project Management Team to provide technical support. Technical advisors include but are not limited to Washington State Department of Ecology, Washington State Community Trade and Economic Development Board, Washington State Department of Transportation and Tacoma Public Utilities.

2. Transportation issues will be a significant consideration in the Subarea Plan development. As the need arises for technical advice, support from the trucking, rail and shipping industries will be tapped to provide expertise and guidance to Project Management Team.

D. Public Engagement Plan

1. Public open houses and other opportunities for public comment will be developed through the Public Engagement Plan.

2. The Project Management Team, consultant, and Stakeholder Advisory Group will develop a proposed Public Engagement Plan.

3. The Tacoma Planning Commission will review the proposed Public Engagement Plan and provide comment to the Project Management Team and consultant.

4. Staff Leadership Team will review and provide input to the Project Management Team and consultant and the Steering Committee on proposed Public Engagement Plan.

5. Steering Committee will meet to review the Public Engagement Plan with the Project Management Team and Staff Leadership Team. Steering Committee will affirm/approve the Plan within 30-calendar days.

IX. Plan Development

As the Project Management Team and consultants begin the Subarea Plan development, multiple work efforts will be undertaken by staff and consultant teams. The breakdown of the Subarea Plan development is described in this section.

To maintain engagement with the participating governments through these multiple work efforts, Work Study Sessions on various subjects and key issues will be scheduled to offer the Steering Committee, the Stakeholder Advisory Group and the Planning Commission an opportunity to receive information and provide feedback. Work Study Sessions will be open to the Public but will not

receive public comment. Public comment will occur through open house and other public opportunities for comment. These public comment events will be developed through the Public Engagement Plan. Work Study Sessions will be coordinated between Project Management Team, the Staff Leadership Team, Stakeholder Advisory Group and the Planning Commission. Work Study Sessions will be open for other elected officials from the participating governments. Throughout the Plan development, any changes to written materials shall be presented in both redlined and change accepted versions to facilitate efficient review and comment.

A. Analysis of Existing Conditions

The consultant(s) in consultation with the Project Management Team will conduct the analysis of existing conditions. Prior to finalizing, the Project Management Team will present the analysis of the existing conditions for comment at a meeting of the Staff Leadership Team.

B. Visioning of Scope and Goals of Consultant Analysis

The Steering Committee, Staff Leadership Team, Project Management Team, Stakeholder Advisory Group and the Planning Commission will be involved in visioning through Work Study Sessions.

C. Identification of Alternatives for Future Development

1. Based on feedback from the Work Study Session(s), consultant(s) will provide revised proposed alternatives for future development for review and comment by the Project Management Team and Staff Leadership Team, at a meeting held for this purpose.

2. After Project Management Team and Staff Leadership Team review, the Steering Committee will review alternatives for future development with the Project Management Team within 30-calendar days. The Steering Committee will make a recommendation on alternatives contained in the proposed Subarea Plan to the City Planning Commission. Each government will have the ability to provide joint or separate input within the same 30-calendar days period.

D. Evaluation of Alternatives Including Environmental Review

The consultant(s) with Subarea Project Management Team, and in consultation with Staff Leadership will conduct an analysis of existing conditions including environmental review and develops draft subarea plan. Prior to finalizing, the Project Management Team will present the analysis and draft plan for comment at a meeting of the Staff Leadership Team.

E. Development and Recommendation of the Proposed Subarea Plan

1. The Project Management Team will present a proposed Subarea Plan to Staff Leadership Team for review and advice and to set the Steering Committee Schedule.

2. The Project Management Team will then present the draft proposal to the Steering Committee within 30-calendar days. The Steering Committee will review the proposed Subarea Plan, affirm the Plan and recommend a final Subarea Plan proposal to the City.

Each government will have the ability to provide joint or separate written comment within the same 30-calendar day period.

X. Planning Commission Reviews Proposed Subarea Plan and Prepares Recommendation to City Council

If the Tacoma Planning Commission proposes material changes to the Steering Committee's final proposed Subarea Plan, the changes will be provided to the Steering Committee for review and comment, either jointly or separately within a 45-calendar day comment period.

A final recommendation by the Planning Commission will be sent to the City Council and provided to each participating government. Each participating government and the Steering Committee will have the opportunity, either jointly or separately, to comment on the Planning Commission's Final Recommendation. That comment period will coincide with the 60-calendar day period between Planning Commission final recommendation and City Council consideration.

XI. City Council Review and Decision

The Tacoma City Council will review the Subarea Plan recommendation by Planning Commission.

If any Tacoma City Council Member(s) propose a material change to the proposed Subarea Plan, the proposed change/amendment will be provided to the Steering Committee for review and comment, either jointly or separately, within a 45-calendar day comment period. With any additional City Council Member(s) proposed material change amendment(s), the review and comment process will repeat.

All participating governments of the Steering Committee will have the opportunity to offer comment on any City Council Member(s) proposed amendment. Steering Committee governments may submit comments jointly, by agreement, or separately.

Final City Council adoption of the Subarea Plan, by ordinance, will occur after the final 45-calendar day comment period.

APPENDIX B Determination of Significance and Notice of Scoping

Determination of Significance
Notice of Environmental Impact Statement (EIS)
Public Scoping and Public Scoping Meeting

Tideflats Subarea Plan and Planned Action Environmental Impact Statement

SEPA File Number: LU22-0124

Proponent: City of Tacoma (City)

Project Name: Tacoma Tideflats Subarea Plan and Planned Action EIS

Funding: The Subarea Plan and EIS are jointly funded by the City of Tacoma, Port of Tacoma, and Puyallup Tribe of Indians.

Description of the Proposal: The proposed project involves development of an innovative, area-wide subarea plan for Tacoma's Tideflats, which will become an optional element of the City's Comprehensive Plan. The subarea plan is expected to include elements related to land use, economic development, the environment, public facilities and services, and transportation. The subarea plan is being developed for consistency with the Growth Management Act, Shoreline Management Act, multicounty planning policies, countywide planning policies, and the City of Tacoma Comprehensive Plan.

Planned Action Environmental Review: A planned action environmental review involves detailed State Environmental Policy Act (SEPA) review and preparation of EIS documents in conjunction with sub-area plans, consistent with RCW 43.21C.031, RCW 43.21C.440, and WAC 197-11-164 through WAC 197-11-172. Completing a non-project EIS presents a cumulative impact analysis for the entire subarea, rather than piecemeal analysis of the environmental impacts and mitigation on a project-by-project basis. As a result, the environmental impacts and mitigation are comprehensively evaluated at the subarea-wide level. Such up-front analysis of impacts and mitigation measures then facilitates environmental review of subsequent individual development projects. The City would not make a threshold determination and may not require additional environmental review, for a future development proposal that is determined to be consistent with the planned action ordinance. This will provide certainty and predictability for both development proposals and the community, streamline the environmental review process within the subarea, and encouraging the goals of SEPA[1] and the State's Growth Management Act (Chapter 36.70A RCW). Community members, agencies, and tribes are encouraged to participate and provide comment during this planned action environmental review effort while the evaluation is under preparation since it will guide future development proposals and future threshold determinations would be limited.

Location: The Plan area is based on the current Port of Tacoma Manufacturing Industrial Center (MIC) which is defined both in the Puget Sound Regional Council VISION 2040 as well as the City of Tacoma Comprehensive Plan. However, studies and recommendations from the Plan process will likely extend beyond this Plan area, including the lands immediately adjacent to the MIC and depending on the topic under review (air and water quality, traffic impacts, freight corridors, land use transitions, economic

[1] SEPA is the State Environmental Policy Act (Chapter 43.21C RCW). Regulations that implement SEPA are called the SEPA Rules (Chapter 197-11 WAC).

impacts and strategies, etc.). The City of Tacoma intends to designate this Tacoma Tideflats Subarea as a planned action under the provisions of RCW43.21C.440.

Lead Agency: The City of Tacoma is lead agency for SEPA compliance.

Environmental Impact Statement Required: The City of Tacoma has determined that the Tacoma Tideflats Subarea Plan is likely to have a significant adverse environmental impact. An EIS under RCW 43.21C.030(2) (c) will be prepared. This decision was made after review of information on-file with the City. Preliminary indications are that the following environmental parameters will be evaluated in this EIS:

- Air Quality
- Stormwater and Water Quality
- Plants and Animals
- Land and Shoreline Use/Plans and Policies
- Population, Employment, and Housing
- Cultural Resources
- Transportation
- Public Utilities
- Public Services

Alternatives: It is proposed that the EIS analyze several alternatives as part of the Tacoma Tideflats Subarea Plan. The Alternatives include a No Action Alternative and three Action Alternatives. It is anticipated that the alternatives will be based on variations of elements such as the mix of industrial zoning and land uses, employment growth scenarios, transition areas, housing types and location, sea level rise adaptation strategies, fish and wildlife habitat restoration, and shoreline public access and recreation.

For purposes of the No Action Alternative, it is assumed that development would occur within the Tacoma Tideflats Subarea based on existing zoning and development standards. Development or redevelopment that is proposed within the Tacoma Tideflats Subarea in conjunction with the No Action Alternative would undergo environmental review on a project-by-project basis. Such projects would be subject to site-specific mitigation and potential SEPA-based appeals.

The alternatives are described in more detail on the project webpage found at www.cityoftacoma.org/tideflatsplan.

EIS Scoping: Agencies, affected tribes and members of the public are invited to comment on the scope of this proposed EIS. You may comment on the alternatives, probable significant adverse impacts, proposed mitigation measures, and licenses or other approvals that may be required. Methods for presenting your comments are described below. The expanded scoping process is being provided pursuant to the Washington Administrative Code (WAC) 197-11-410 and will include one public scoping meeting. Due to continued precautions for COVID-19, this meeting will be held virtually.

Please note that the City of Tacoma does not discriminate on the basis of disability in any of its programs, activities, or services. To request this information in an alternative format or a reasonable accommodation, please contact the City Clerk's Office at 253-591-5505. TTY or speech-to-speech users, please dial 711 to connect to Washington Relay Services.

Comment Deadline: All comments are due no later than 5:00 pm on Friday, August 5, 2022, Pacific Standard Time (PST).

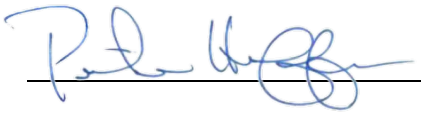
Methods to Provide Comments:

- **Written comments may be submitted:**
  Online at www.cityoftacoma.org/tideflatsplan.
  By mail to:
  Attn: Stephen Atkinson, Principal Planner, Long Range Planning Division
  City of Tacoma, Planning and Development Services
  747 Market Street, Room 349
  Tacoma, WA 98402

- **Virtual EIS Public Scoping Meeting – An EIS Scoping meeting is scheduled from 6:00-8:30 pm PST, Wednesday, July 13, 2022.** The purpose of the meeting is to present information about the proposed Subarea Plan and Planned Action, the SEPA process, and to provide a verbal comment opportunity on the scope of the proposed EIS. To participate in the scoping meeting attendees are requested to register in advance and may sign up to provide an official scoping comment using the following meeting link: bit.ly/tideflatsmtg. Attendees who do not sign up to provide a scoping comment in advance may still make a verbal scoping comment at the meeting. A court reporter will be in attendance to transcribe comments.

Project-related information can be reviewed on the project website at: www.cityoftacoma.org/tideflatsplan.

Responsible Official: Peter Huffman
Position/Title: Director, Planning and Development Services Department

Signature: 

Issue Date: June 21, 2022
Comment Deadline: August 5, 2022

APPENDIX C Scoping Summary Report

1. INTRODUCTION AND PROJECT OVERVIEW

This document summarizes public comments received by the City of Tacoma (City) during the State Environmental Policy Act (SEPA) Programmatic Environmental Impact Statement (EIS) scoping period for the Tacoma Tideflats Subarea Plan and Planned Action between June 21 and August 5, 2022.

This summary contains an overview of the Tacoma Tideflats Subarea Plan (Plan) and Planned Action project, the EIS SEPA scoping process, a discussion of EIS scoping public engagement efforts, and a summary of comments provided during the 45-day EIS scoping comment period. Attachment A presents a copy of the Determination of Significance and Request for Comments on the Scope of the Programmatic EIS. Attachment B provides a copy of the legal notice.

1.1 PROJECT OVERVIEW

The proposed project involves development of an innovative, area-wide subarea plan for Tacoma's Tideflats, which will become an optional element of the City's Comprehensive Plan. The subarea plan is expected to include elements related to land use, economic development, the environment, public facilities and services, and transportation. The subarea plan is being developed for consistency with the Growth Management Act, Shoreline Management Act, multicounty planning policies, countywide planning policies, and the City of Tacoma Comprehensive Plan. The City also plans to adopt a Planned Action ordinance for the Tacoma Tideflats area.

The Tideflats subarea plan is intended to create a shared long-term vision and more coordinated approach to development, environmental review, and strategic capital investments in the Tideflats. Completion of the subarea plan will support the ongoing eligibility for and prioritization of transportation funding in the regional manufacturing and industrial center.

The Plan area is based on the current Port of Tacoma Manufacturing Industrial Center (MIC) which is defined both in the Puget Sound Regional Council's VISION 2050 as well as the City of Tacoma Comprehensive Plan. In recognition of the regional significance of the MIC, the City of Tacoma, Port of Tacoma, Puyallup Tribe of Indians, City of Fife, and Pierce County have partnered to develop a Tideflats Subarea Plan for adoption by the City of Tacoma as part of the City's Comprehensive Plan. The planning effort is guided by a Steering Committee comprised of two elected representatives of each partner government.

1.2 ALTERNATIVES

Four Preliminary EIS Alternative Concepts were developed by the Tideflats Steering Committee for the Tacoma Tideflats Subarea Plan and Planned Action EIS and recommended to the City of Tacoma as SEPA lead agency as the basis for the scoping period. The identification of Guiding Principles helped frame and shape how the preliminary alternative concepts were structured. The Guiding Principles and Alternatives

are based on community input received during the community visioning process, consideration of the regional planning framework, input from the five participating governments, and the overarching themes and anticipated outcomes from the intergovernmental Work Plan.

EIS alternatives considerations included:

- The four Alternatives presented are intended to convey a range that will be tested and evaluated in the EIS. All alternatives assume the subarea remains a Manufacturing Industrial Center (MIC).
- Agencies are encouraged to describe alternatives as different ways to meet objectives. Alternatives may, however, emphasize or weight benefits and outcomes differently.
- Impacts have not been assessed at this stage; impact analysis will be performed as part of EIS.
- Alternatives are conceptual, they provide high-level direction, but are not yet parcel or use specific.
- The purpose of alternatives is to present options to decision-makers and the public in a meaningful way.
- Alternatives should be distinct and different enough to allow for meaningful comparison and should represent a range of reasonable options; it is not necessary to consider every possible option.
- The final subarea plan need not be identical to any single alternative but must be within the range of alternatives considered. The subarea plan can mix and match and pull elements from each alternative.
- Identifying a preferred alternative is not required but can be designated at any point in the process.
- A 'no action' alternative is required and provides a benchmark for comparison with 'action' alternatives.
- Some information, such as a fiscal analysis, will inform and influence the plan but is not included in the EIS.

Details and conceptual maps for each alternative are included in a document on the City website: https://www.cityoftacoma.org/UserFiles/Servers/Server_6/File/cms/Planning/Tideflats/Subarea%20Plan/EIS%20Scoping/Preliminary%20Alternatives%203.24.2022.pdf.

1.3 SEPA THRESHOLD ENVIRONMENTAL DETERMINATION

The City has determined that the Tacoma Tideflats Subarea Plan and Planned Action project is likely to have a significant adverse environmental impact. An EIS under RCW 43.21C.030(2) (c) will be prepared. Agencies, affected tribes, and members of the public were invited to comment on the scope of this proposed EIS including the alternatives, probable significant adverse impacts, proposed mitigation measures, and licenses or other approvals that may be required. An expanded 45-day scoping comment period was provided pursuant to the Washington Administrative Code (WAC) 197-11-410 and included one public scoping meeting. Due to continued precautions for COVID-19, the meeting was held virtually.

2. SCOPING PROCESS

Scoping is one of the earliest steps in the EIS process, as mandated by SEPA (Washington Administrative Code [WAC] 197-11-408) and includes a public comment period. The purpose of scoping is to determine the range, or "scope," of issues to study in the EIS. Pursuant to SEPA, the City notified the public of the intent to prepare an EIS so that agencies, tribes, communities, organizations, and members of the public had an opportunity to comment on the scope of the impacts and range of alternatives to be analyzed. The scoping comment period started on June 21 and ended on August 5, 2022.

The scoping comment period is the first of two formal opportunities in the SEPA process for the public to provide comments. The public will have a second opportunity after the publication of the Draft EIS. The public comment period for the Draft EIS is expected to take place during the spring 2023.

A SEPA Determination of Significance was issued by the City on June 21, 2022.

2.1 NOTIFICATION AND OUTREACH ACTIVITIES

The City followed legal notification requirements and conducted outreach activities to notify agencies, tribal governments, and members of the public and stakeholders of the scoping comment period and public scoping meeting in accordance with Section 13.12.610 of the City of Tacoma Municipal Code.

2.1.1 Outreach Activities

The City developed both a Scoping Notice and Legal Notice (see Attachments A and B). The following chart lists the different methods used to share information with the community. Information is included on pre-scoping outreach activities as well as EIS scoping outreach events.

Pre-Scoping Notification and Engagement – City staff conducted early community engagement to present the preliminary alternatives recommended by the Steering Committee, and to share information on the scoping process and how to participate.	
May 18, 2022	**Planning Commission**
June 2, 2022	**Tideflats Advisory Group**
June 6, 2022	**Community Informational Meeting**
June 14, 2022	**City Council**
Public Notice – The following public notices were provided to encourage participation in the pre-scoping meetings: • Update to the project website: www.cityoftacoma.org/tideflatsplan • Notice to the Planning Commission e-mail distribution lists • Mailed public scoping notice to 9,500 taxpayers and occupants within 2500' of the Port of Tacoma Manufacturing and Industrial Center • E-mail notice provided to approximately 400 interested parties • Information on how to participate in the Community Informational Meeting was shared at the Planning Commission and Tideflats Advisory Group meetings.	
Scoping Meetings – City staff conducted the following scoping meetings during to support public comments on the proposed scope of the EIS and Alternatives.	
June 23, 2022	**Tideflats Advisory Group**
July 6, 2022 and August 3, 2022	**Tacoma Planning Commission**
July 13, 2022	**Community Scoping Meeting**

Public Notice – The following public notices were provided to encourage participation in the Scoping meetings:

- Update to the project website: cityoftacoma.org/tideflatsplan
- Notice to the Planning Commission e-mail distribution lists
- Mailed public scoping notice to 9,500 taxpayers and occupants within 2500' of the Port of Tacoma Manufacturing and Industrial Center
- E-mail notice provided to approximately 400 interested parties
- Information on how to participate in the Community Scoping Meeting was shared at the Planning Commission and Tideflats Advisory Group meetings
- Public notice signs were posted at eight locations throughout the Tideflats from June 21, 2022, to August 5, 2022
- Legal notice was placed in the Tacoma Daily Index publication for issuance on June 21, 2022
- Digital advertisement placed in the News Tribune on July 8, 9, and 11, 2022
- The public scoping meeting was advertised via social media and a Facebook event page
- The Determination of Significance was uploaded to the SEPA Register and distributed to the City of Tacoma SEPA recipients
- The public scoping meeting was advertised via social media and a Facebook event page

2.2 SCOPING MEETING

Due to the ongoing COVID-19 pandemic, the City opted to host a virtual public scoping meeting via Zoom on July 13, 2022. The project team provided information about the proposed Subarea Plan and Planned Action, the SEPA process, and an opportunity to provide a verbal comment on the scope of the proposed EIS. 43 attendees joined the virtual public scoping meeting and 15 provided verbal scoping comments. A recording of the meeting is included on the project website at www.cityoftacoma.org/tideflatsplan

3. SUMMARY OF SCOPING COMMENTS

3.1 COMMENT REVIEW METHODOLOGY

This section provides a high-level summary of comments received during the SEPA scoping process. The comments are organized by topic according to general themes. Many of these topics are overlapping, and best professional judgement was used to classify a given comment into an appropriate category. Comments have been summarized, paraphrased, and are grouped generally for review purposes. This summary highlights the most common topics.

Comments received during scoping will be used to inform the analysis presented in the Draft EIS. The purpose of this summary is to provide information on the comments received and does not indicate any position by the City regarding the stated information. Comments will be considered and addressed in the Draft EIS as appropriate. A combined total of 103 verbal and written comments were received. Of this number:

- 15 verbal comments were provided at the public scoping meeting
- Comments were provided at the June 23, 2022 Technical Advisory Group (TAG) meeting and are counted as one comment from an organization, though themes from individual commenters at the meeting are including within the topic in the summary
- 87 unique comments were submitted via writing, including through the online comment portal, email, and mail

3.2 ELEMENTS OF THE ENVIRONMENT

3.2.1 Air Quality

The following comments relate to air quality and emissions:

- Request for cumulative air quality analysis, including how each alternative would affect air quality
- Request for short and long-term cumulative health impact assessment that includes PM 2.5, toxic air pollution, hazardous air pollution, and volatile organic compounds

3.2.2 Environmental Health

The following comments relate to contaminated sites, sediments, and pollutant generators:

General Comments

- Assure stewardship, support, and rehabilitate the natural and built environment
- Analyze the value of pollution, heat and urban dead zones, loss of healthy soil and aquatic life

Earth Contamination and Remediation

- Evaluate which alternatives include mitigation measures to remediate current, and prevent future, Superfund sites
- Analyze soil and sediments for toxins, including dioxin
- Study whether future development may release historical deposits of pollution and prevent future pollution
- Evaluate pollution reduction practices (e.g., feasibility of requiring risk bonding for businesses on the Tideflats to move the economic burden of pollution to the polluters instead of the public)
- Impact of existing pollution, such as methane from the LNG plant and arsenic in the landfill, to any future industry that may be added to the Tideflats

3.2.3 Earth

The following comments related to natural disasters:

- Consider impacts of natural disasters and their effects due to geographic location, such as liquification, tidal waves, lahars, and flooding
- Consider the impacts to the delta, Commencement Bay, and Puget Sound from natural disasters

3.2.4 Land and Shoreline Use – Plans and Policies

The following comments relate to zoning, development, land and shoreline use, plans and policies, and public access:

Land Use Zoning

- Analyze short- and long-term effects of future industrial uses in the plan
- Rezone current industries to mitigate toxicity
- Restrict new development on the Tideflats and strongly encourage business owners to locate or relocate their business elsewhere in the city or county
- Consider a light industrial commercial buffer from residential areas, using the Fife transition area as an example
- Establish an equitable buffer-zone for protection of the northwest slope

Shoreline Use

- Restore the shoreline
- Consolidate all habitat preservation/restoration area points from each alternative into the final
- Consider consistent zoning between waterways (e.g., make the Hylebos Waterway reflect the zoning that is found on the Thea Foss Waterway)
- Analysis should be realistic about ability to impact the Puyallup River due its size and features

- Impact to local waterways

Plans and Policies

- Study what the impact will be of zoning codes changes to availability and potential loss of industrial land and infrastructure
- Analyze how each alternative meets state and federal law, including the law around container ports

Public Access

- Study which alternatives create more access to the Tideflats for culture, education, scientific, and recreational activities available to the public
- Impacts to boat access
- Opportunities for the public to engage with the Tideflats
- Study the impacts of recreation, including parks and opportunities for viewing riparian activities

Many comments specifically requested a study of the impacts to changing the zoning on the northeast side of the Tideflats. Comments included:

- Study the impacts of transitioning the northeast side to light industrial and/or commercial
- Study the impacts and benefits of transitioning the northeast shore into recreational zoning (no industry) for boating, beaches, and parks or a waterfront area
- Add the same buffer to Hylebos on the northeast side as on the downtown side and treat both areas the same
- Ensure the northeast side is as clean as the downtown area

3.2.5 Plants and Animals

The following comments relate to requests for analysis of potential impacts to plants and animals or their habitat.

General

- Request analysis of how each alternatives impacts, protects, or restores salmon, shellfish, orca, beaver, otter, migratory birds, other wildlife, and threatened and endangered species
- Include the restoration of Puyallup anadromous fish habitat and delta ecosystem as one of the main factors in the decision-making process
- Consider upstream and downstream impacts
- Consider a wildlife corridor that may encompass one of the biodiversity sites identified near the Manke Lumber location along SR 509 (Manke Gulch), Julia's Gulch Park, and Hylebos

- Restore prior biodiversity, including seals, river otters, mussels, anemones, salmon, falcons, eagles, owls, whales, and dolphins in the Thea Foss Waterway
- Prioritize ecological health of the Tideflats

Trees

- Request for analysis of impacts to preserving trees and greenspace, especially in areas with low access to greenspace and tree canopy
- Protection of the cottonwood trees at Thorne Road and Maxwell Way, near the salt marsh qʷiqʷəlut, which is important for bird habitat including eagles
- Examine impacts to tree canopy coverage and implement goals that are consistent with the City's existing tree canopy goals and the Urban Forest Management Plan

3.2.6 Public Services

The following comments relate to requests for analysis of public services:

- Examine how public safety will be impacted under each alternative
- Identify incident and hazard response (fire, police, etc.), required infrastructure maintenance (roads, rail, shoreline), etc. for each type of heavy industrial use in the Tideflats

3.2.7 Water

Protecting water quality was an emerging theme in the scoping comments:

- Analyze how much toxic stormwater and wastewater is projected to run into Commencement Bay and the Puyallup River under each alternative
- Study how each alternative will impact aquifer recharge areas, including pollution from toxic tire debris, paving over permeable land, groundwater contamination, and storm water runoff
- Impacts to local hydrology, such as drinking water from upstream on the Green River, and groundwater withdrawals
- Impacts to the wastewater treatment plant capacity and disposal of gray water into Commencement Bay

3.2.8 Energy

A common theme in the scoping comments included an emphasis on transitioning away from fossil fuels and relying more on green energy. The theme of energy has been broken into the following subtopics:

Fossil Fuels

- Determine the greenhouse gas impact from the amount of fossil fuels that would be allowed in the Tideflats under each alternative

- Minimize and prevent existing and future projects and industries that rely on fossil fuels in the Tideflats
- Pursue an alternative that is the least fossil fuel dependent
- Study the impacts of the potential for renewable energy and low/zero carbon fuels under each alternative
- Include the local and regional economic, socioeconomic and health cost of increasing fossil fuels

Green Energy

- Explore how alternatives will promote or create green industries
- Impact on ability to apply for permitting for green energy projects and clarity around what zoning would allow that
- Green hydrogen requires carbon emissions and focus should be on green industry and zero emissions
- Analyze where potential green jobs would be located

3.2.9 Population, Employment, Housing

The following comments relate to population, employment, and housing:

Population

- Analyze impact to people staying in live-work housing and people living near the Port
- Analyze impact to overall quality of life

Employment

- Analyze the potential for job creation, including technical port jobs and green jobs,
- Need more information about how jobs will be created, specifically the 10,000 jobs in the alternatives
- Make clear requirements of the Growth Management Act regarding jobs
- Job security for existing jobs
- Study what type of employment and industries will exist in the Tideflats into the future

Housing

- Explore how the alternatives will affect the number of low-income housing units and any requirements for low-income housing
- Study how the alternatives impact those experiencing homelessness
- Impacts of each alternative to home values

3.2.10 Transportation

The following comments related to traffic, transit, transportation infrastructure, and pedestrian impacts:

- Analyze how each alternative will impact traffic congestion, pedestrian safety, daily mobility of residents, and wear and tear on public roadways
- Request to include a pedestrian/bike trail along the northeast Tacoma waterfront that would connect to our existing or future trail systems throughout the South Sound
- Impact of increase in car traffic to, and parking at, the Port of Tacoma
- Analyze access to public transit
- Need a focus on proactive and significant investment and infrastructure to improve transportation
- Traffic study of mobility of freight, goods, and people

3.3 SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND TRIBAL RIGHTS

The following comments relate to social equity, tribal consideration, and environmental justice:

3.3.1 Cultural Resources

- Analyze how aspects of the different alternatives impact Puyallup Tribal sovereignty, as well as how air and water quality will be impacted on the Puyallup Indian reservation
- Meaningfully engage with Puyallup Tribe of Indians on future decisions in the Tideflats
- Ensure that economic prosperity in the Tideflats is equitable to the Puyallup Tribe of Indians
- Consider the Puyallup Tribe of Indians' long history of stewardship and vitality in the area, and incorporate Indigenous knowledge in solutions to support environmental protection and a thriving economy
- Consider impacts to the Medicine Creek Treaty of 1854
- Study how to restore natural habitat, fisheries, existing tree canopy, and native habitat within the Tideflats while strengthening the presence of the Puyallup Tribe of Indians culture on their ancestral lands

3.3.2 Environmental Justice

- Study how aspects of the alternatives will impact Black, Brown, and Indigenous communities
- Include overburdened communities in the scope of the EIS
- Study how aspects of the alternatives impact equity, the City of Tacoma's equity goals, and systemic racism and ongoing inequities
- Study how aspects of the alternatives will impact redlined neighborhoods

3.4 PUBLIC HEALTH

The following comments related to public health and a common theme included a request for a cumulative health impact assessment:

3.4.1 Public Health

- Study how to provide a safe and less polluted environment for port employees, local residents, and the Puyallup Indian Tribe
- Study how public health will be impacted by air pollution projected in each alternative (see also comments in air quality comment section)
- Study how tree populations would impact the health of workers in the Tideflats
- Workers who must work outside are subject to increasing risk of heat exposure
- Public health and safety should be their own guiding principle
- Request for clarity around what a “cleaner” place to live means
- Include a cumulative health impact assessment for each alternative that encompasses traffic emissions, facility emissions, noise pollution and light pollution, toxic/hazardous air pollution including PM2.5, and volatile organic compounds (see also comments in air quality section)
- Ensure health assessment includes outcomes for employees and nearby residents of the Tideflats

3.5 ECONOMIC DEVELOPMENT

The following comments relate to industry, wealth, and businesses in the Tideflats:

- Study the impacts of creating an economic green zone, as well as which alternatives would best support an economic green zone
- Identify clean and innovative industries/businesses and the value that they would bring the region in terms of revenue and employment density
- Study impacts of the Plan to the marine industrial sector
- Create jobs that promote environmental stewardship and healthy communities
- Ensure businesses comply with safety and sustainability standards
- Study the impacts of promoting scientific research and regenerative environmental practices though the creation of an innovation hub in the Tideflats
- Study the monetary and economic value of elements of the environment, public access, and the waterfront
- Study and analyze the businesses that proposed zoning may put out of business, including number of employees, average wage and salaries paid to employees, and tax revenue
- Consider impacts to the Puyallup River and Commencement Bay with regards to shipping and the economic value that brings

3.6 CLIMATE CHANGE AND RESILIENCE

The following comments address themes related to climate change and resilience:

3.6.1 Climate Change and Resilience

- Study which alternatives promote or create green industries that will help address the climate crisis
- Study the impacts of a hydrogen facility in the Tideflats
- Identify industries needed to meet decarbonization goals
- Analyze the impact if all the fossil fuel facilities expanded to an additional 15%
- Analyze sea level rise projections
- Provide measures for how to study whether improvements are being made toward climate change resilience

3.7 EIS AND SEPA PROCESS

Comments were made about the overall EIS and Tideflats Subarea Plan process, including public meeting notifications, and who should be included in the overall process. Themes included:

- Encourage wider public participation and outreach in the EIS process
- Virtual public scoping meeting was not widely advertised
- Engage the Tideflats Steering Committee and Tideflats Advisory Group in the process
- Potential changes to the Tideflats should be made collaboratively with impacted parties involved
- Scoping information was vague about what will cause potential adverse environmental effects, and what projects are expected as an outcome of the proposal
- Process should be open, transparent, and inclusive
- Interested in more detail for the guiding principles that inform the alternatives, including the enforceable actions that will result in the goals
- Concern that having the EIS process occur once will not account for the environmental impact for specific projects moving forward
- Request for clarity around who the scientists and environmental subject matters experts are
- Request for clarity around how the criteria in the guiding principles will be defined and measured
- Analysis should be holistic and interdisciplinary, e.g., decarbonization goals, job growth and density, and being a leader in the green economy are all interrelated
- Guiding principles should be more directly connected to the alternatives

- Clarification about whether analysis will be done for each element of each alternative, or only on each alternative holistically
- Would be helpful if analysis included a matrix to compare impacts across alternatives
- Request for more details about meaning of “incompatible use” vs going out of business
- Clarification about whether the alternatives are already set in stone
- Clarification about whether adding an amendment would receive the same level of analysis as the current existing alternatives
- Clarification about the overall process and how feedback will be shared with the Steering Committee and City Council

4. NEXT STEPS

4.1 DRAFT EIS PUBLICATION AND REVIEW

The City has reviewed all of the scoping comments received and will use them as appropriate to shape the environmental analysis included in the Draft EIS.

The Draft EIS, anticipated to be published in 2023, will be available for public review and comment. Following publication of the Draft EIS, organizations, agencies, tribes, and the public will have an opportunity to comment on the content of the document. A public scoping meeting will be held during the Draft EIS comment period. Notice of the public scoping meeting and the public comment period will be sent directly to all parties who submitted scoping comments, tribes, agencies with jurisdiction, and those who have specifically asked to receive notices about the project. Notice will also be posted on the project website (www.cityoftacoma.org/tideflatsplan). After the Draft EIS comment period, the City will prepare the Final EIS.

ATTACHMENTS

A. Scoping Notice

B. Legal Notice

ATTACHMENT A: SCOPING NOTICE

Determination of Significance
Notice of Environmental Impact Statement (EIS)
Public Scoping and Public Scoping Meeting

Tideflats Subarea Plan and Planned Action Environmental Impact Statement

SEPA File Number: LU22-0124

Proponent: City of Tacoma (City)

Project Name: Tacoma Tideflats Subarea Plan and Planned Action EIS

Funding: The Subarea Plan and EIS are jointly funded by the City of Tacoma, Port of Tacoma, and Puyallup Tribe of Indians.

Description of the Proposal: The proposed project involves development of an innovative, area-wide subarea plan for Tacoma's Tideflats, which will become an optional element of the City's Comprehensive Plan. The subarea plan is expected to include elements related to land use, economic development, the environment, public facilities and services, and transportation. The subarea plan is being developed for consistency with the Growth Management Act, Shoreline Management Act, multicounty planning policies, countywide planning policies, and the City of Tacoma Comprehensive Plan.

Planned Action Environmental Review: A planned action environmental review involves detailed State Environmental Policy Act (SEPA) review and preparation of EIS documents in conjunction with sub-area plans, consistent with RCW 43.21C.031, RCW 43.21C.440, and WAC 197-11-164 through WAC 197-11-172. Completing a non-project EIS presents a cumulative impact analysis for the entire subarea, rather than piecemeal analysis of the environmental impacts and mitigation on a project-by-project basis. As a result, the environmental impacts and mitigation are comprehensively evaluated at the subarea-wide level. Such up-front analysis of impacts and mitigation measures then facilitates environmental review of subsequent individual development projects. The City would not make a threshold determination and may not require additional environmental review, for a future development proposal that is determined to be consistent with the planned action ordinance. This will provide certainty and predictability for both development proposals and the community, streamline the environmental review process within the subarea, and encouraging the goals of SEPA[1] and the State's Growth Management Act (Chapter 36.70A RCW). Community members, agencies, and tribes are encouraged to participate and provide comment during this planned action environmental review effort while the evaluation is under preparation since it will guide future development proposals and future threshold determinations would be limited.

Location: The Plan area is based on the current Port of Tacoma Manufacturing Industrial Center (MIC) which is defined both in the Puget Sound Regional Council VISION 2040 as well as the City of Tacoma Comprehensive Plan. However, studies and recommendations from the Plan process will likely extend beyond this Plan area, including the lands immediately adjacent to the MIC and depending on the topic under review (air and water quality, traffic impacts, freight corridors, land use transitions, economic

[1] SEPA is the State Environmental Policy Act (Chapter 43.21C RCW). Regulations that implement SEPA are called the SEPA Rules (Chapter 197-11 WAC).

impacts and strategies, etc.). The City of Tacoma intends to designate this Tacoma Tideflats Subarea as a planned action under the provisions of RCW43.21C.440.

Lead Agency: The City of Tacoma is lead agency for SEPA compliance.

Environmental Impact Statement Required: The City of Tacoma has determined that the Tacoma Tideflats Subarea Plan is likely to have a significant adverse environmental impact. An EIS under RCW 43.21C.030(2) (c) will be prepared. This decision was made after review of information on-file with the City. Preliminary indications are that the following environmental parameters will be evaluated in this EIS:

- Air Quality
- Stormwater and Water Quality
- Plants and Animals
- Land and Shoreline Use/Plans and Policies
- Population, Employment, and Housing
- Cultural Resources
- Transportation
- Public Utilities
- Public Services

Alternatives: It is proposed that the EIS analyze several alternatives as part of the Tacoma Tideflats Subarea Plan. The Alternatives include a No Action Alternative and three Action Alternatives. It is anticipated that the alternatives will be based on variations of elements such as the mix of industrial zoning and land uses, employment growth scenarios, transition areas, housing types and location, sea level rise adaptation strategies, fish and wildlife habitat restoration, and shoreline public access and recreation.

For purposes of the No Action Alternative, it is assumed that development would occur within the Tacoma Tideflats Subarea based on existing zoning and development standards. Development or redevelopment that is proposed within the Tacoma Tideflats Subarea in conjunction with the No Action Alternative would undergo environmental review on a project-by-project basis. Such projects would be subject to site-specific mitigation and potential SEPA-based appeals.

The alternatives are described in more detail on the project webpage found at www.cityoftacoma.org/tideflatsplan.

EIS Scoping: Agencies, affected tribes and members of the public are invited to comment on the scope of this proposed EIS. You may comment on the alternatives, probable significant adverse impacts, proposed mitigation measures, and licenses or other approvals that may be required. Methods for presenting your comments are described below. The expanded scoping process is being provided pursuant to the Washington Administrative Code (WAC) 197-11-410 and will include one public scoping meeting. Due to continued precautions for COVID-19, this meeting will be held virtually.

Please note that the City of Tacoma does not discriminate on the basis of disability in any of its programs, activities, or services. To request this information in an alternative format or a reasonable accommodation, please contact the City Clerk's Office at 253-591-5505. TTY or speech-to-speech users, please dial 711 to connect to Washington Relay Services.

Comment Deadline: All comments are due no later than 5:00 pm on Friday, August 5, 2022, Pacific Standard Time (PST).

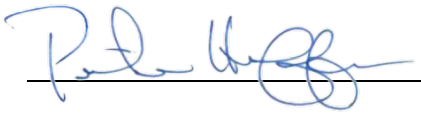
Methods to Provide Comments:

- **Written comments may be submitted:**
  Online at www.cityoftacoma.org/tideflatsplan.
  By mail to:
  Attn: Stephen Atkinson, Principal Planner, Long Range Planning Division
  City of Tacoma, Planning and Development Services
  747 Market Street, Room 349
  Tacoma, WA 98402

- **Virtual EIS Public Scoping Meeting – An EIS Scoping meeting is scheduled from 6:00-8:30 pm PST, Wednesday, July 13, 2022.** The purpose of the meeting is to present information about the proposed Subarea Plan and Planned Action, the SEPA process, and to provide a verbal comment opportunity on the scope of the proposed EIS. To participate in the scoping meeting attendees are requested to register in advance and may sign up to provide an official scoping comment using the following meeting link: bit.ly/tideflatsmtg. Attendees who do not sign up to provide a scoping comment in advance may still make a verbal scoping comment at the meeting. A court reporter will be in attendance to transcribe comments.

Project-related information can be reviewed on the project website at: www.cityoftacoma.org/tideflatsplan.

Responsible Official: Peter Huffman
Position/Title: Director, Planning and Development Services Department

Signature: 

Issue Date: June 21, 2022
Comment Deadline: August 5, 2022

ATTACHMENT B: LEGAL NOTICE

AFFIDAVIT OF PUBLICATION

STATE OF WASHINGTON
COUNTY OF PIERCE ss

KEN SPURRELL, being first duly sworn on oath, deposes and says that he is the Publisher of the

"TACOMA DAILY INDEX, INC."

a daily legal newspaper. That said newspaper is a legal newspaper, which, pursuant to the provisions of Chapter 213 of the 1941 Session Laws of the State of Washington, has been approved as a legal newspaper by order of the Superior Court of the State of Washington in and for Pierce County, entered on June 12, 1941, in Cause No. 84921 entitled "In the matter of the application and qualification of Tacoma Daily Index as a legal newspaper." That said newspaper has been published regularly and continually at least once a week, in the English language, as a newspaper of general circulation the city of Tacoma, Pierce County, Washington, the city where the same was published at the time of said application for approval for at least six months prior to the date of such application, and is now and during all of said time so printed, either in whole or in part, in an office maintained at the aforesaid place of publication, and the same is now and ever since said date has been so published.

That the annexed is a true copy of a City Notices-Tacoma NOTICE EIS Tacoma Tideflats Subarea Plan & Planned legal notice as it was published in regular issues (and not in supplement form) of said newspaper 1 time(s) according to statute, commencing on 6/21/2022 and ending on 6/21/2022 both dates inclusive. That the full amount of the fee charged for the foregoing publication is the sum of $369.53

KEN SPURRELL, Publisher

Subscribed and sworn before me this 21st day of June, 2022.

ALLEN F. NEMEC
20105048
NOTARY
PUBLIC
COMMISSION EXPIRES 05-02-24
STATE OF WASHINGTON

Notary Public in and for the State of Washington,
Residing at Tacoma

City of Tacoma
IDX957053

Determination of Significance
Notice of Environmental Impact Statement (EIS)
Public Scoping and Public Scoping Meeting

Proponent: City of Tacoma (City)

Project Name: Tacoma Tideflats Subarea Plan and Planned Action EIS

Description of the Proposal: The proposed project involves development of an innovative, area-wide subarea plan for Tacoma's Tideflats, which will become an optional element of the City's Comprehensive Plan. The subarea plan is expected to include elements related to land use, economic development, the environment, public facilities and services, and transportation. The subarea plan is being developed for consistency with the Growth Management Act. Shoreline Management Act, multicounty planning policies, countywide planning policies, and the City of Tacoma Comprehensive Plan.

Planned Action Environmental Review: A planned action environmental review involves detailed State Environmental Policy Act (SEPA) review and preparation of EIS documents in conjunction with sub-area plans, consistent with RCW 43.21C.031, RCW 43.21C.440, and WAC 197-11-164 through WAC 197-11-172. Completing a non?project EIS presents a cumulative impact analysis for the entire subarea, rather than piecemeal analysis of the environmental impacts and mitigation on a project?by?project basis. As a result, the environmental impacts and mitigation are comprehensively evaluated at the subarea?wide level. Such up-front analysis of impacts and mitigation measures then facilitates environmental review of subsequent individual development projects. The City would not make a threshold determination and may not require additional environmental review, for a future development proposal that is determined to be consistent with the planned action ordinance. This will provide certainty and predictability for both development proposals and the community, streamline the environmental review process within the subarea, and encouraging the goals of

SEPA and the State's Growth Management Act (Chapter 36.70A RCW). Community members, agencies, and tribes are encouraged to participate and provide comment during this planned action environmental review effort while the evaluation is under preparation since it will guide future development proposals and future threshold determinations would be limited.

Location: The Plan area is based on the current Port of Tacoma Manufacturing Industrial Center (MIC) which is defined both in the Puget Sound Regional Council VISION 2040 as well as the City of Tacoma Comprehensive Plan. However, studies and recommendations from the Plan process will likely extend beyond this Plan area, including the lands immediately adjacent to the MIC and depending on the topic under review (air and water quality, traffic impacts, freight corridors, land use transitions, economic impacts and strategies, etc.). The City of Tacoma intends to designate this Tacoma Tideflats Subarea as a planned action under the provisions of RCW43.21C.440.

Lead Agency: The City of Tacoma is lead agency for SEPA compliance.

Environmental Impact Statement (EIS) Required: The City of Tacoma has determined that the Tacoma Tideflats Subarea Plan is likely to have a significant adverse environmental impact. An EIS under RCW 43.21C.030(2) (c) will be prepared. This decision was made after review of information on-file with the City. Preliminary indications are that the following environmental parameters will be evaluated in this EIS:

* Air Quality
* Stormwater and Water Quality
* Plants and Animals
* Land and Shoreline Use/Plans and Policies
* Population, Employment, and Housing
* Cultural Resources
* Transportation
* Public Utilities
* Public Services

Alternatives: It is proposed that the EIS analyze several alternatives as part of the Tacoma Tideflats Subarea Plan. The Alternatives include a No Action Alternative and three Action Alternatives. It is anticipated that the alternatives will be based on variations of elements such as the mix of industrial zoning and land uses, employment growth scenarios, transition areas, housing types and location, sea level rise adaptation strategies, fish and wildlife habitat restoration, and shoreline public access and recreation.

For purposes of the No Action Alternative, it is assumed that development would occur within the Tacoma Tideflats Subarea based on existing zoning and development standards. Development or redevelopment that is proposed within the Tacoma Tideflats Subarea in conjunction with the No Action Alternative would undergo environmental review on a project-by-project basis. Such projects would be subject to site-specific mitigation and potential SEPA-based appeals.

The alternatives are described in more detail on the project webpage found at www.cityoftacoma.org/tideflatsplan.

EIS Scoping: Agencies, affected tribes and members of the public are invited to comment on the scope of this proposed EIS. You may comment

on the alternatives, probable significant adverse impacts, proposed mitigation measures, and licenses or other approvals that may be required. Methods for presenting your comments are described below. The expanded scoping process is being provided pursuant to the Washington Administrative Code (WAC) 197-11-410 and will include one public scoping meeting. Due to continued precautions for COVID-19, this meeting will be held virtually.

Please note that the City of Tacoma does not discriminate on the basis of disability in any of its programs, activities, or services. To request this information in an alternative format or a reasonable accommodation, please contact the City Clerk's Office at 253-591-5505. TTY or speech-to-speech users please dial 711 to connect to Washington Relay Services.

Comment Deadline: All comments are due no later than 5:00 pm on Friday, August 5, 2022, PST

Methods to Provide Comments:

* **Written comments may be submitted:**

Online at www.cityoftacoma.org/tideflatsplan,

By mail to:

Attn: Stephen Atkinson, Principal Planner, Long Range Planning Division
City of Tacoma, Planning and Development Services
747 Market Street, Room 349
Tacoma, WA 98402

* **Virtual EIS Public Scoping Meeting - An EIS Scoping meeting is scheduled from 6:00-8:30 pm PST, Wednesday, July 13, 2022.** The purpose of the meeting is to present information about the proposed Subarea Plan and Planned Action, the SEPA process, and to provide a verbal comment opportunity on the scope of the proposed EIS. To participate in the scoping meeting attendees are requested to register in advance and may sign up to provide an official scoping comment using the following meeting link: bit.ly/tideflatsmtg. Attendees who do not sign up to provide a scoping comment in advance may still make a verbal scoping comment at the meeting. A court reporter will be in attendance to transcribe comments.

Project-related information can be reviewed on the project website at: www.cityoftacoma.org/tideflatsplan.

Responsible Official: Peter Huffman, Director, Planning and Development Services

Issue Date: June 21, 2022

Comment Deadline:
August 5, 2022, 5:00 p.m.

IDX-957053
June 21, 2022

APPENDIX D Alternatives Development Methods

SEVA WORKSHOP

Memorandum

Date: 10/19/2023
To: Pam Xander, ESA
From: Radhika Nair
Subject: Alternatives Development Methods

Assumptions

The following assumptions were used to generate the jobs and housing estimates for each Alternative. Please note that these are planning level estimates intended to create a range of options for the EIS process to test.

Housing

- No new housing is anticipated in Alternative 1, 2, and 4.
- For Alternative 3, housing is anticipated for some sites with development potential in the Portland Avenue Station Area.

Employment

- All Alternatives are within the 20,000 planned jobs assigned by PSRC for MICs and adopted by the Steering Committee.
- Existing jobs were reviewed from sources in 2010 with the Buildable Lands Report (2014) summed at 11,479 and in 2019 estimated to be 10,161 jobs based on PSRC counts of covered employment within the MIC.[1]
- The goal of the exercise was to create a range of options consistent with the land use concepts for testing in the EIS rather than all Alternative testing the same 20,000 job limit. For this purpose, employment totals between existing jobs and the 20,000 were estimated and assigned to alternatives.[2]

[1] 2019 covered employment estimate were the best available estimates in 2020. Recent 2022 estimates from PSRC indicate employment of 9,941 in 2022 in the MIC. Covered employment refers to jobs "covered" under the state's Unemployment Insurance Program and constitutes 85% to 90% of total employment. Covered employment estimates in the MIC over the 2010–2022 period are fairly stable with a median of 9,990.
[2] https://www.psrc.org/sites/default/files/2022-03/centers_monitoring.pdf includes a range of employment densities for different MICs with 6.4 as the average across the region.

- Estimates are based on different intensities or types of development on sites with development potential. Sites with development potential include those that are vacant or underutilized based on the 2010 Pierce County Buildable Lands analysis and review of recent development activity.
- For Alternatives 1/ No Action and Alternative 4, no changes to the core area or the type or employment is anticipated. Employment is based on growth trends i.e. anticipated to grow at the same pace (at a growth rate of roughly 0.84% between 2010 and 2019) as it has in the past 10 years from a base employment of roughly 10,161 jobs in 2019.
- For Alternative 2, the core area is anticipated to be smaller as shown on the Alternative maps adopted by the Steering Committee. Some areas are shifted from the core area to the transition areas to accommodate industry supportive uses. Employment is anticipated to be focused on industrial uses.
  - Employment on sites with development potential in the core area is anticipated to increase from an existing employment density of roughly 2 jobs per acre to 3 jobs per acre given anticipated support for industries such as shipbuilding
  - Employment on sites with development potential in the 509 to Fife transition area is anticipated to increase from roughly 1 job per acre to 7 jobs per acre to reflect the changes to a light and heavy industrial mix of uses.
  - Employment on sites with development potential in the Foss Peninsula transition area is anticipated to increase from 12 to 22 jobs per-acre to reflect the higher jobs associated with the Transit-Oriented Manufacturing[3] concept with industrial uses, some retail components, craft production, port related office and research and development uses.
  - Employment on sites with development potential in the middle peninsula is anticipated to stay at the same density as existing at 7 jobs per acre.
  - Employment on sites with development potential in the northeast Tacoma transition area is anticipated increase to 9 jobs per acre density because of the change a mix of light industrial with commercial uses.

[3] https://digitalcommons.tacoma.uw.edu/urban_design_studios/26/

  - Employment on sites with development potential in the Portland Ave station area is anticipated to increase from the existing 11 jobs per acre to 22 jobs per acre to reflect the Transit-Oriented Manufacturing concept.

- For Alternative 3, like Alternative 2, the core area is anticipated to be smaller.
  - Employment on sites with development potential in the core area is anticipated to increase from an existing employment density of roughly 2 jobs per acre to 4 jobs per acre given anticipated support for industries such as shipbuilding. Employment density increases but the area continues to support port activity with greater limits on non-industrial activity.
  - Employment on sites with development potential in the 509 to Fife transition area is anticipated to increase from roughly 1 job per acre to 20 jobs per acre to reflect the changes to a light industrial mix of uses.
  - Employment on sites with development potential in the Foss Peninsula transition area is anticipated to increase from 12 to 25 jobs per-acre to reflect the higher jobs associated with the Transit-Oriented Manufacturing concept with industrial uses, some retail components, craft production, port related office and research and development uses.
  - Employment on sites with development potential in the middle peninsula is anticipated to increase from 7 jobs per acre to 16 jobs per acre to reflect the shift to light industrial uses.
  - Employment on sites with development potential in the Portland Ave station area is anticipated to increase from the existing 11 jobs per acre to a much higher employment density of 38 jobs per acre to reflect the traditional Transit-Oriented Development concept with mixed use commercial and light industry.

Results – 2044

	No Action	Alternative 2	Alternative 3	Alternative 4
Employment 2044	12,527	16,813	20,008	12,527

APPENDIX E MIC Census Profile Data

2020 Census Profile

Manufacturing Industrial Center
Area: 7.92 square miles

by IT-GIS Data Analytics

	2010		2020		2023		Annual Rate		
	Number	Percent	Number	Percent	Number	Percent	2000-2020	2010-2020	2020-2023
Total Population	954	100.0%	1,114	100.0%	1,088	100.0%	4.73%	1.56%	-0.72%
Household Population	332	34.8%	620	55.7%	610	56.1%	6.41%	6.45%	-0.50%
Group Quarters	622	65.2%	494	44.3%	478	43.9%	3.20%	-2.28%	-1.01%
Population Density	119.2	-	140.6	-	137.3	-			
Total Housing Units	20	100.0%	28	100.0%	28	100.0%	6.46%	3.42%	0.00%
Total Households	12	60.0%	21	75.0%	24	85.7%	6.46%	5.76%	4.19%
Total Vacant	8	40.0%	4	14.3%	4	14.3%	3.53%	-6.70%	0.00%
Average Household Size	27.67	-	29.52	-	25.42	-	-		-

Population by Race	2020 Total		2020 Non-Hispanic		2020 Hispanic	
	Number	Percent	Number	Percent	Number	Percent
Total	1,114	100.0%	776	69.7%	338	30.3%
Population Reporting One Race	1,031	92.5%	717	64.4%	315	28.3%
White	547	49.1%	528	47.4%	19	1.7%
Black	64	5.7%	62	5.6%	2	0.2%
American Indian	13	1.2%	12	1.1%	1	0.1%
Asian	100	9.0%	100	9.0%	1	0.1%
Pacific Islander	13	1.2%	12	1.1%	0	0.0%
Some Other Race	294	26.4%	3	0.3%	291	26.1%
Population Reporting Two or More Races	83	7.5%	59	5.3%	23	2.1%
Diversity Index	81.1	-		-	-	-

Population 18+ by Race	2020 Total		2020 Non-Hispanic		2020 Hispanic	
	Number	Percent	Number	Percent	Number	Percent
Total	1,056	94.8%	732	94.3%	323	95.6%
Population Reporting One Race	993	89.1%	685	88.3%	309	91.4%
White	532	47.8%	514	66.2%	18	5.3%
Black	60	5.4%	57	7.3%	2	0.6%
American Indian	7	0.6%	6	0.8%	1	0.3%
Asian	98	8.8%	97	12.5%	1	0.3%
Pacific Islander	9	0.8%	9	1.2%	0	0.0%
Some Other Race	288	25.9%	1	0.1%	287	84.9%
Population Reporting Two or More Races	63	5.7%	48	6.2%	15	4.4%

Population <18 by Race	2020 Total		2020 Non-Hispanic		2020 Hispanic	
	Number	Percent	Number	Percent	Number	Percent
Total	58	5.2%	43	5.5%	15	4.4%
Population Reporting One Race	38	3.4%	32	4.1%	6	1.8%
White	15	1.3%	14	1.8%	1	0.3%
Black	5	0.4%	5	0.6%	0	0.0%
American Indian	6	0.5%	6	0.8%	0	0.0%
Asian	3	0.3%	3	0.4%	0	0.0%
Pacific Islander	4	0.4%	3	0.4%	0	0.0%
Some Other Race	6	0.5%	2	0.3%	5	1.5%
Population Reporting Two or More Races	20	1.8%	11	1.4%	8	2.4%

Data Note: Hispanic population can be of any race. Population density is measured in square miles. Esri's Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).

Source: U.S. Census Bureau. U.S. Census Bureau 2020 decennial Census data.

December 08, 2023

2020 Census Profile

Manufacturing Industrial Center
Area: 7.92 square miles

by IT-GIS Data Analytics

Group Quarters Population	2020	
	Number	Percent
Total	494	44.3%
Institutionalized population	405	36.4%
Correctional facilities for adults	405	36.4%
Juvenile facilities	0	0.0%
Nursing facilities/Skilled-nursing	0	0.0%
Other institutional facilities	0	0.0%
Noninstitutionalized population	89	8.0%
College/University student housing	0	0.0%
Military Quarters	0	0.0%
Other noninstitutional	89	8.0%

Population by Sex	2020	
	Number	Percent
Male	719	64.5%
Female	395	35.5%

Population by Age	2020	
	Number	Percent
Total	1,114	**100%**
Age 0-4	18	1.6%
Age 5-9	12	1.1%
Age 10-14	12	1.1%
Age 15-19	40	3.6%
Age 20-24	123	11.0%
Age 25-29	174	15.6%
Age 30-34	141	12.7%
Age 35-39	126	11.3%
Age 40-44	87	7.8%
Age 45-49	77	6.9%
Age 50-54	68	6.1%
Age 55-59	70	6.3%
Age 60-64	51	4.6%
Age 65-69	42	3.8%
Age 70-74	32	2.9%
Age 75-79	22	2.0%
Age 80-84	9	0.8%
Age 85+	10	0.9%
Age 18+	1,056	94.8%
Age 65+	115	10.3%

Data Note: Hispanic population can be of any race. Population density is measured in square miles. Esri's Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).

Source: U.S. Census Bureau. U.S. Census Bureau 2020 decennial Census data.

December 08, 2023

2020 Census Profile

Manufacturing Industrial Center
Area: 7.92 square miles

by IT-GIS Data Analytics

Households by Type	2020	
	Number	Percent
Total	21	100%
Married Couple Households	6	28.6%
With Own Children <18	1	4.8%
Without Own Children <18	5	23.8%
Cohabitating Couple Households	2	9.5%
With Own Children <18	0	0.0%
Without Own Children <18	2	9.5%
Male Householder, No Spouse/Partner	6	28.6%
Living Alone	5	23.8%
65 Years and over	1	4.8%
With Own Children <18	0	0.0%
Without Own Children <18, With Relatives	0	0.0%
No Relatives Present	1	4.8%
Female Householder, No Spouse/Partner	6	28.6%
Living Alone	5	23.8%
65 Years and over	1	4.8%
With Own Children <18	1	4.8%
Without Own Children <18, With Relatives	1	4.8%
No Relatives Present	0	0.0%

Households by Size	2020	
	Number	Percent
Total	21	100%
1 Person Household	10	47.6%
2 Person Household	8	38.1%
3 Person Household	2	9.5%
4 Person Household	1	4.8%
5 Person Household	0	0.0%
6 Person Household	0	0.0%
7+ Person Household	0	0.0%

Population by Relationship	2020	
	Number	Percent
Total	1,114	100%
In Households	620	55.7%
Householder	384	61.9%
Opposite-Sex Spouse	96	15.5%
Same-Sex Spouse	4	0.6%
Opposite-Sex Unmarried Partner	35	5.6%
Same-Sex Unmarried Partner	2	0.3%
Biological Child	50	8.1%
Adopted Child	4	0.6%
Stepchild	4	0.6%
Grandchild	6	1.0%
Brother or Sister	2	0.3%
Parent	3	0.5%
Parent-in-law	1	0.2%
Son-in-law or Daughter-in-law	1	0.2%
Other Relatives	5	0.8%
Foster Child	2	0.3%
Other Nonrelatives	21	3.4%

Data Note: Hispanic population can be of any race. Population density is measured in square miles. Esri's Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).

Source: U.S. Census Bureau. U.S. Census Bureau 2020 decennial Census data.

December 08, 2023

2020 Census Profile

Manufacturing Industrial Center
Area: 7.92 square miles

by IT-GIS Data Analytics

Households by Age of Householder	2020	
	Number	Percent
Total	21	100%
Householder Age 15-24	2	9.5%
Householder Age 25-34	6	28.6%
Householder Age 35-44	3	14.3%
Householder Age 45-54	3	14.3%
Householder Age 55-59	2	9.5%
Householder Age 60-64	1	4.8%
Householder Age 65-74	3	14.3%
Householder Age 75-84	1	4.8%
Householder Age 85+	0	0.0%

Family Households by Race of Householder	2020	
	Number	Percent
Total	8	100%
Householder is White Alone	6	28.6%
Householder is Black Alone	1	4.8%
Householder is American Indian Alone	0	0.0%
Householder is Asian Alone	1	4.8%
Householder is Pacific Islander Alone	0	0.0%
Householder is Some Other Race Alone	0	0.0%
Householder is Two or More Races	1	4.8%
Households with Hispanic Householder	1	4.8%

Nonfamily Households by Race of Householder	2020	
	Number	Percent
Total	13	100%
Householder is White Alone	9	42.9%
Householder is Black Alone	1	4.8%
Householder is American Indian Alone	0	0.0%
Householder is Asian Alone	1	4.8%
Householder is Pacific Islander Alone	0	0.0%
Householder is Some Other Race Alone	0	0.0%
Householder is Two or More Races	1	4.8%
Households with Hispanic Householder	1	4.8%

Total Housing Units by Occupancy	2020	
	Number	Percent
Total	28	100%
Occupied Housing Units	21	75.0%
Vacant Housing Units	4	14.3%
For Rent	3	75.0%
Rented, not Occupied	0	0.0%
For Sale Only	0	0.0%
Sold, not Occupied	0	0.0%
For Seasonal/Recreational/Occasional Use	0	0.0%
For Migrant Workers	0	0.0%
Other Vacant	0	0.0%

Data Note: Hispanic population can be of any race. Population density is measured in square miles. Esri's Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).

Source: U.S. Census Bureau. U.S. Census Bureau 2020 decennial Census data.

December 08, 2023

2020 Census Profile

Manufacturing Industrial Center
Area: 7.92 square miles

by IT-GIS Data Analytics

Owner-Occupied Housing Units by Race of Householder	2020	
	Number	Percent
Total	8	100%
Householder is White Alone	6	75.0%
Householder is Black Alone	0	0.0%
Householder is American Indian Alone	0	0.0%
Householder is Asian Alone	1	12.5%
Householder is Pacific Islander Alone	0	0.0%
Householder is Some Other Race Alone	0	0.0%
Householder is Two or More Races	0	0.0%
Hispanic Householder	0	0.0%

Renter-Occupied Housing Units by Race of Householder	2020	
	Number	Percent
Total	13	100%
Householder is White Alone	9	69.2%
Householder is Black Alone	1	7.7%
Householder is American Indian Alone	0	0.0%
Householder is Asian Alone	1	7.7%
Householder is Pacific Islander Alone	0	0.0%
Householder is Some Other Race Alone	0	0.0%
Householder is Two or More Races	1	7.7%
Hispanic Householder	1	7.7%

Data Note: Hispanic population can be of any race. Population density is measured in square miles. Esri's Diversity Index summarizes racial and ethnic diversity. The index shows the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. The index ranges from 0 (no diversity) to 100 (complete diversity).

Source: U.S. Census Bureau. U.S. Census Bureau 2020 decennial Census data.

December 08, 2023

APPENDIX F Tideflats Employment Sensitivity Analysis

SEVA WORKSHOP

Memorandum

Date: 03/31/2024
To: Stephen Atkinson, City of Tacoma
From: Seva Workshop
Subject: Tideflats Employment Sensitivity Analysis

Purpose

The 5,160-acre Port of Tacoma MIC includes Tacoma and Pierce County's highest concentration of industrial and manufacturing activity. This area includes port and marine terminals, marine cargo, on-dock intermodal rail yards, container terminals, roll-on/roll-off facilities, non-containerized cargo facilities (moving grain, fruit, alumina, and wood chips), automobile import facilities, shipyards, boat building and drydocks (PSRC, 2013). The MIC is the subject of a subarea planning effort guided by a multiagency Steering Committee (including the Puyallup Tribe of Indians, Pierce County, Port of Tacoma, and the Cities of Tacoma and Fife) and a planned action Environmental Impact Statement (EIS) analysis to consider various land use and policy alternatives.

The subarea plan will be a guiding element addressing a 20-year period and will be a chapter of the City of Tacoma's Comprehensive Plan. Likewise, the EIS analysis considers the subarea plan as a non-project action (WAC 197-11-774). The long-range planning and environmental review process thus requires planning-level estimates of employment to consider the potential planning implications and environmental impact of alternatives.

The alternatives for the EIS process were developed with a Steering Committee in fall 2022, and are available here:

- Plan and EIS Alternatives

The four alternatives are:

Alternative 1: Alternative 1 represents the baseline (called the No Action Alternative in EIS terms) or the policies, regulations, and programs in effect when the EIS process is initiated, and a Determination of Significance is issued. This Alternative assumes that future growth will occur under the

policies and regulations in place. Alternative 1 maintains existing zoning, with the most extensive heavy industrial zoning among the alternatives. Based on existing employment growth rates, it emphasizes current competitive advantages while allowing most flexibility for emerging markets and other commercial uses.

Alternative 2: This Alternative assumes greater restrictions on non-industrial activity in heavy industrial zoning districts. A greater focus on industrial employment is anticipated and industrial uses with higher employment densities are encouraged. Some Transition Areas become Light Industrial.

Alternative 3: This alternative represents highest overall employment density, with same overall growth target as alternative 2, but with more land in restoration/conservation status. Transition areas are combination of light industrial and transit-oriented manufacturing, TOD around Portland Ave Station. This alternative represents a greater allowance for non-industrial uses within the Transition Areas

Alternative 4: This Alternative maintains the policies of Alternative 1. Transition Areas are zones between heavy industrial and non-industrial areas, providing for a mix of industrial and compatible non-industrial uses and performance standards to address off site impacts.

The purpose of this memo is to share the results of a sensitivity analysis to test the conclusions of the original density based employment estimate analysis by varying key assumptions. These key assumptions are (1) baseline levels of employment (2) the employment densities, and (3) redevelopable lands. We further test the conclusion by varying the estimation method, including industry-level employment projections and incorporating absorption assumptions.

Original Employment Density

The employment density method, also referred to as the "original" method, was used in 2023 to develop employment estimates in four different scenarios. To develop these estimates, Seva Workshop analyzed historic trends and the compound annual growth rate in jobs since 2010 to 2021. Under the No Action (current plan) alternative, and Alternative 4, these historic growth trends were continued until 2044. For alternatives that include changes to land uses (Alternatives 2 and 3), Seva Workshop used comparable employment densities from recent regional studies.

Beyond zoning changes, there are many more economic and market factors that affect whether development actually takes place, whether it results in changes in employment density, and on what timeline these changes will occur. For these reasons, Alternative 2 and 3 estimates should be interpreted as the potential employment capacity of the site for purposes of assessing environmental impacts. The table below shows the results for 2044 Employment Estimates. A separate memo describes the assumptions and methods in more detail.

Figure 1 Estimates under Original Employment Density Analysis

	NO ACTION	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Employment 2044	12,527	16,813	20,008	12,527

Source: Seva Workshop

Baseline Sensitivity

This table shows the No Action employment estimates based on the use of different baseline numbers.

Figure 2 Employment 2044 Sensitivity to Baseline Selection

	ORIGINAL ANALYSIS: PSRC/ ESD ESTIMATE 2020 (10,161)	2022 BASELINE (9,941) PSRC/ESD ESTIMATE 2024	CAI DIRECT JOBS 2017 (14,450)
NO ACTION	12,527	12,036	17,495

Employment Density Sensitivity

Seva Workshop consulted recent regional studies which includes reports from Pierce County and the Puget Sound Regional Council (see detailed list in the References) to develop assumptions for employment density in Alternative 2 and 3. To test the employment projections for sensitivity we apply the Low and High estimates from this review of literature.

Figure 3 Employment 2044 Sensitivity to Employment Density

	ORIGINAL ANALYSIS (ASSUMPTIONS IN FIG 4)	LITERATURE LOW	LITERATURE HIGH
NO ACTION	12,527	-	-
ALTERNATIVE 2	16,813	9,018	29,313
ALTERNATIVE 3	20,008	9,037	32,244
ALTERNATIVE 4	12,527	-	-

Sources: Seva Workshop, 2023; BERK, 2022; PSRC Regional Centers Monitoring Report, 2013.

Figure 4 Employment Density – Existing and Assumed under Alternatives

	Core Area	Buffer	509 to Fife	Core Area (new)	Foss Peninsula	Middle Peninsula	Northeast Tacoma	Portland Ave Station Area	Puyallup River
Total Parcel Acres	3,397	552	232	2,747	209	213	277	96	175
Existing Employment Density	2.5	5.4	0.9	1.9	12.2	7	1.5	10.4	3
NO ACTION	-	-	-	-	-	-	-	-	-
ALTERNATIVE 2			7	3	22	7	9	22	3
ALTERNATIVE 3			20	4	25	16	9	38	1
ALTERNATIVE 4		-	-	-	-	-	-	-	-

Sources: Seva Workshop, 2023; BERK, 2022; PSRC Regional Centers Monitoring Report, 2013.

Figure 5 Map of Character Areas

Sources: BERK, 2022

Redevelopable Land Sensitivity

Redeveloping land is the way that an area “captures” or “absorbs” anticipated employment growth. The greater the amount of land anticipated to redevelop, the greater the employment gains. Further, redevelopment to different land uses might be expected to house different concentrations of employment (comparing retail to manufacturing, for example).

There are several methods to determine the amount of land available to be redeveloped. For example, the Department of Commerce provides guidance that describes five approaches including achieved densities, improvement value, improvement to land value ratios, market studies, and comparable sites. There is further variation among these methods and often estimates will be

further adjusted based on local knowledge and professional judgment. It is at the discretion of the local jurisdiction to establish a methodology for identifying redevelopable lands based on the data available and lessons learned through prior updates. (Pierce County Buildable Lands Program, 2019).

The original analysis used a net count of opportunity sites based on the 2020 Pierce County Buildable Lands inventory with some adjustments for local knowledge[1]. To test the sensitivity of the conclusions, we used two other commonly used metrics: the improvement value to land value ratio (ILR) and the improvement value per square foot (ISF). Both of these metrics require a threshold value under which redevelopment is likely. This threshold value may vary according to the market. For example, a recent ECONorthwest study found that since 2010, redevelopment in Pierce County occurred on lots with a median improvement to land value ratio (ILR) of 0.59. However, Tacoma had a significantly higher median ILR (0.80) compared to other cities (0.55) and unincorporated UGAs (0.40). (Pierce County Buildable Lands Program, 2019)

As the table below demonstrates the original method of identifying redevelopable land was the most conservative and likely an *underestimate*, identifying only 48 percent of the MIC by land area as opportunity sites or redevelopable (see numbers highlighted in yellow). This is consistent with study findings where ECONorthwest reviewed 849 parcels built or platted since 2010 to evaluate how much and where redevelopment occurred since 2010 and how well the County's methodology accounted for the redevelopment that did occur. They showed that about 70% of realized redevelopment in Pierce County occurred on parcels that were previously marked Built Out/Undevelopable in the 2010 Buildable Lands Inventory. (Pierce County Buildable Lands Program, 2019).

The ILR and ISF methods produce very similar results, identifying 75 percent and 80 percent of the MIC by land area as potential for redevelopment respectively. Both estimates netted out land area designated for rights of way (street and rail), parks, wetlands, and water. We used a threshold value of 0.80 for the ILR following the ECONorthwest finding cited above. We further tested this result using a threshold value of 0.40 (the unincorporated UGA value cited above) which resulted in 66 percent of land identified as redevelopable, or 18 percent more than the original analysis. We used a threshold value of $10 per square foot following a 2020 Community Attributes, Inc study for Seattle Maritime and Industrial Strategy. Cutting this value in half as a sensitivity test would only reduce the identified redevelopable land to 70 percent. (Community Attributes, Inc, 2020; Pierce County Buildable Lands Program, 2019)

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[1] The adjustments included additional parcels marked "Built Out/Undevelopable" as Opportunity Sites based on local knowledge.

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Figure 6 Redevelopable Lands Methods Comparison

	Core Area	Buffer	509 to Fife	Core Area (new)	Foss Peninsula	Middle Peninsula	Northeast Tacoma	Portland Ave Station Area	Puyallup River	Total
Tacoma MIC										
Count of Parcels (count)	524	226	51	330	109	70	59	106	25	750
Total Parcel Size (gross acres)	3,379	572	242	2,700	221	244	268	86	189	3,950
Total Parcel Size (net acres)	3,104	431	184	2,497	205	220	182	84	163	3,535
Redevelopable Land Methods Comparison										
Opportunity Sites (count)	367	168	35	243	75	25	47	81	29	535
Opportunity Sites (acres)	1,596	281	70	1,263	139	96	214	49	46	1,877
Opportunity Sites (% of acres)	47%	51%	30%	46%	66%	45%	77%	51%	26%	48%
Sites by ILR < threshold (count)	389	147	43	251	74	44	50	61	13	536
Sites by ILR < threshold (acres)	2,345	306	179	1,935	116	91	126	55	149	2,652
Sites by ILR < threshold (% of acres)	76%	71%	97%	78%	56%	42%	69%	65%	92%	75%
Sites by ISF < threshold (count)	382	146	42	247	71	44	50	61	13	528
Sites by ISF < threshold (acres)	2,504	307	178	2,097	113	91	126	56	149	2,811
Sites by ISF < threshold (% of acres)	81%	71%	97%	84%	55%	42%	69%	67%	92%	80%

Sources: Seva Workshop, 2024; BERK, 2022; Community Attributes, 2020; Pierce County Buildable Lands, 2019. & 2020.

Advanced Methods

The planning-level employment density-based calculation used in the original analysis is a valid, though basic, method. It has the advantage of being easy to implement and is reliant on easily available data and sources for assumptions.

More advanced methods may differentiate among industry types and employment types possible on industrial lands and incorporate more sources of data to refine employment forecasts, redevelopment potential, and absorption assumptions. This level of analysis is important in changing markets where the mix of employment industries is expected to be significantly different in the future. However, as a limitation, high quality data typically does not exist at this level of granularity, especially at smaller geographies (sub MIC). For example, Community Attributes, Inc produced this level of analysis for the Seattle Maritime and Industrial Strategy which included several MICs (Community Attributes, Inc, 2020). Attempting a more fine-grained analysis introduces many more areas for subjective judgment and needed interpolations and assumptions. It is also more costly and time-consuming to implement. While a fully replication of the advanced analysis is not feasible for the Tacoma MIC, we do show here the results of a more refined analysis by industry to test the sensitivity of the original high-level analysis.

Industry-Specific Employment Estimates

Results of using industry-specific growth rates to generate employment estimates are described in this section. Estimates of employment growth by industry for the No Action Alternative and Alternative 4 that reflect 1) trends and 2) changes in future industries are shown below. Numbers shown in black reflect a status quo allocation of demand by sector. Numbers in red reflect a decrease in demand based on the assumptions of the No Action Alternative.

Figure 7 2044 Employment Projections by Industry (used in No Action and Alternative 4)

	Baseline Year	Employment Growth Rates	2044 Employment
	2019	Tacoma MIC Historic CAGR 2010-2019	
Construction/Resources	437	1.5%	628
FIRE	103	5.6%	398
Manufacturing	2,619	-2.4%	1,424
Retail	294	1.2%	396
Services	1,912	1.2%	2,576
WTU	4,220	1.9%	6,717
Government	576	-1.7%	372
Education	-	0.0%	-
Total	**10,161**		**12,511**

Estimates of employment growth by industry for Alternative 2 are shown below. Numbers shown in black reflect a status quo allocation of demand by sector. Numbers in red reflect a decrease in demand and numbers in green represent an increase in demand. Employment estimates assume:

- Growth in manufacturing is anticipated to be higher than current trends
- Growth in retail is anticipated to be less than current trends given the emphasis on industrial uses

Figure 8 Employment Projections by Industry (Alternative 2)

	Baseline Year	Employment Growth Rates	2044 Employment
	2019	Tacoma MIC Historic CAGR 2010-2019	
Construction/Resources	437	1.5%	628
FIRE	103	5.6%	402
Manufacturing	2,619	0.8%	3,196
Retail	294	1.2%	396
Services	1,912	4.1%	5,221
WTU	4,220	1.9%	6,717
Government	576	-1.7%	372
Education	-	0.0%	-
Total	**10,161**		**16,933**

Estimates of employment growth by industry for Alternative 3 are shown below. Numbers shown in black reflect a status quo allocation of demand by sector. Numbers in red reflect a decrease in demand and numbers in green represent an increase in demand. Employment estimates assume:

- Growth in construction resources, manufacturing, services, and government are anticipated to be higher in this Alternative
- Growth in the WTU is anticipated to be slightly less than current trends given the emphasis on restoration and compatible non-industrial uses in this Alternative

Figure 9 Employment Projections by Industry (Alternative 3)

	Baseline Year	Employment Growth Rates	2044 Employment
	2019	Tacoma MIC Historic CAGR 2010-2019	
Construction/Resources	437	2.0%	717
FIRE	103	5.6%	402
Manufacturing	2,619	0.8%	3,196
Retail	294	5.5%	1,121
Services	1,912	5.5%	7,291
WTU	4,220	1.0%	5,412
Government	576	5.0%	1,951
Education	-	0.0%	-
Total	**10,161**		**20,090**

Industry-Specific Jobs Absorption

Similar to the original analysis the CAI Industrial Lands analysis uses an employment density assumption for the Action Alternatives to project employment under zoning changes. While the specific metric is different, employees per square foot (in the original analysis) versus square feet of building area per job, they are both essentially ratios of jobs to area and both commonly used. The CAI model does, however, apply different ratios to different industries. Using the CAI assumptions about jobs to area ratios and estimated shares of employment by industry, the Action Alternatives show that there is redevelopment capacity in the Action Alternatives to absorb the projected employment growth. This holds using all three methods of assessing redevelopable lands described above.

Appendices

Figure 10 Industrial Lands Employment Density Comparisons from Literature

	EMPLOYMENT DENSITY (PER ACRE)	SOURCE
BALLARD-INTERBAY	14.7	PSRC. (2013). Regional Centers Monitoring Report.
DUWAMISH	11.6	
FREDRICKSON[2]	1.2	
KENT MIC	7.6	
NORTH TUKWILA MIC	7.6	
PAINE FIELD/BOEING EVERETT	10.0	
PORT OF TACOMA	1.8	
SOUTH KITSAP INDUSTRIAL AREA	0.2	
CLARK COUNTY	9	Parker, B., Hewitt, B., & Raimann, M. (2020). Employment Density Assumptions in the Vacant Buildable Lands Model. ECONorthwest.
ISLAND COUNTY	8	
THURSTON COUNTY	1.5	
TULATIN, OR	15	
MCMINNVILLE, OR	10	
REDMOND, OR	8	
PIERCE COUNTY	8.25	
LAKEWOOD	15-25	
PSRC	0.25-14.7	
PIERCE COUNTY	8.25	Parker, B., Chin, D., DiNatale, S., & Ulsberger, R. (2019). Pierce County
EUGENE, OR (2006)	8.3-20.7	
EUGENE, OR (2011)	5-20	

[2] Fredrickson MIC is anchored by the Boeing Manufacturing Facility comprising more than 80% of the tract's employment and triggering anonymity in the PSRC dataset. Employment density as shown is artificially low.

	EMPLOYMENT DENSITY (PER ACRE)	SOURCE
MINNEAPOLIS, MN	14-42	Employment Density Survey Technical Memorandum. ECONorthwest.

References

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Parker, B., Chin, D., DiNatale, S., & Ulsberger, R. (2019). *Pierce County Employment Density Survey Technical Memorandum.* ECONorthwest.

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APPENDIX G Climate Vulnerability Assessment

The attached Chapter 7, *Climate Change Vulnerability Assessment*, was extracted from the *Tacoma Tideflats Subarea Plan & EIS Draft Baseline Report* (May 2023).

7 CLIMATE CHANGE VULNERABILITY ASSESSMENT

A critical component in climate resiliency planning is an assessment of the vulnerability of different resources and infrastructure assets within the study area. The vulnerability of a resource or asset is defined within this study as a product of three components: exposure, sensitivity, and adaptive capacity (Snover, et al., 2007), defined below.

- **Exposure** is the degree to which a system or asset is exposed to climate hazards over a planning horizon. The 1ft and 2ft RSLR scenarios are the focus of hazard exposure discussion due to the 20-year planning horizon of this study.
- **Sensitivity** is the degree an asset would be impaired by the impacts of climate hazards. Systems that are greatly impaired by small changes in climate hazards have a high sensitivity, while systems that are minimally impaired by the same small change in climate hazards have a low sensitivity.
- **Adaptive capacity** is the ability of an asset to respond to climate hazards, to moderate potential damages, to take advantage of opportunities, and to cope with the consequences. This does not mean that the system must look the same as before the impact, but it must provide comparable services and functions with minimum disruption or additional cost.

The vulnerability of a resource increases as sensitivity and hazard exposure increase. Adaptive capacity is inversely related to vulnerability in that as the adaptive capacity increases, the vulnerability decreases. In the context of SLR adaptation, resources with low vulnerability may utilize lower, less conservative RSLR projections for planning purposes due to their ability to adapt or experience relatively small consequences of RSLR hazard impacts, whereas higher, more conservative RSLR projections may be appropriate for highly vulnerable resources.

7.1 Coastal Development

Hazard Exposure

Coastal flood hazard exposure is limited for coastal development within the 20-year planning horizon of this study. Flood projections under MHHW conditions for the 1ft and 2ft RSLR scenarios are largely restricted to low-lying areas bordering drainage canals and do not extend into any terminal areas. No public service facilities are projected to experience flood impacts under MHHW conditions with 1ft and 2ft RSLR.

Increased flood hazard exposure is seen under 1% annual chance coastal and riverine flood conditions, where flood projections with 1ft RSLR extend into select areas between the Thea Foss Waterway and the Puyallup River as well as areas between the Blair Waterway and Hylebos Waterway. Flood hazard exposure under 1% annual chance conditions becomes more widespread with 2ft RSLR, impacting development within both the MIC and surrounding areas including the Franciscan Occupational Health – Port Clinic, though the majority of projected depths of flooding remain shallow. Flooding is not projected for any other public service facilities under the 1ft and 2ft RSLR scenarios.

Hazard Sensitivity

Coastal development has a high overall sensitivity to both storm and non-storm RSLR hazards, particularly those structures with a first floor that sits at ground level. Though temporary, widespread flood impacts during a 1% annual chance event as projected under a 2ft RSLR scenario are likely to cause substantial damage to any inundated structures, potentially disrupting use of major industrial, commercial, public service, and recreational resources for an extended amount of time as repairs are made. Any coastal flooding from high tides is likely to frequently result in structural damages and disruption of use and services within affected areas.

Adaptive Capacity

Overall adaptive capacity is low for coastal development due to the challenges and costs associated with implementing traditional flood hazard mitigation measures such as elevating structures, flood protection, or floodproofing, especially when considering the potential for widespread flood hazard impacts under severe, long-term RSLR scenarios. Despite overall low adaptive capacity, select development areas that have finished floors on elevated building pads may have improved capacity for adaptation. Options also remain present over the short-to-medium term for low-lying development areas in the form of low-cost flood barriers designed to limit damage from temporary, storm-related flooding. However, reliance on temporary measures may not be adequate to accommodate flood hazard projection under long-term RSLR scenarios.

7.2 Utilities Infrastructure

Hazard Exposure

Coastal flood hazard exposure for utilities infrastructure is greatest along drainage channels that flow into the Blair Waterway and Hylebos Waterway, where high-tide flooding is projected under 1ft and 2ft RSLR scenarios. Exposed infrastructure under MHHW conditions primarily consists of outfalls and stormwater infiltration ponds. Flood hazard exposure for potable water, wastewater, and power infrastructure is minimal under MHHW conditions for the 1ft and 2ft RSLR scenarios.

Under 1% annual chance conditions, coastal flood projections with 1ft RSLR extend across additional stormwater outfalls and additional important utilities resources such as the Central Wastewater Treatment Plant. The flood hazard exposure for power utilities infrastructure increases under 1% annual chance flood conditions with 2ft RSLR as flood projections extend across several substations in areas bordering the Hylebos Waterway, Blair Waterway, and Sitcum Waterway. The flood hazard exposure of water utilities also becomes significant under these conditions due to projected flooding over a large number of outfall locations.

Hazard Sensitivity

Hazard sensitivity for water utilities infrastructure is high overall, as the normal operation of stormwater infrastructure can be affected if water levels rise to the point where backwater effects occur. A backwater effect occurs when a channel restriction or obstruction at the downstream end raises the surface of the water upstream from it, potentially leading to flooding. Though beyond the 20-year planning horizon of this study, high tide flood projections under 4ft and greater RSLR scenarios are likely to impact stormwater operations if outfall locations become inundated for extended periods of time. Any stormwater infrastructure that relies on gravity flow is also likely to experience some reduction in capacity due to higher downstream water levels. Wastewater treatment plants and pump stations are also likely to experience disruptions in service if inundated during flood events.

Adaptive Capacity

The adaptive capacity of water utilities infrastructure is low overall due the built nature of the infrastructure in fixed locations and the need to maintain function of the network as a whole if any changes are made. Any adaptation measures in highly exposed areas would likely require additional hydraulic studies if significant changes are made to ensure utility functions are not adversely impacted as a result. Though a potential challenge, opportunities exist to coordinate elevation of infrastructure such as outfalls, pumps, and lift stations with any future improvements to or elevation of coastal infrastructure if necessary.

7.3 Transportation Infrastructure

Hazard Exposure

Flood hazard exposure for transportation infrastructure is minimal under MHHW conditions for the 1ft and 2ft RSLR scenarios, with only local roadways bordering Hylebos Waterway drainage channels projected to experience flood impacts. Flood hazard exposure increases under the 1% annual chance flood conditions with 1ft RSLR as flood projections extend across multiple roadways within the MIC such as Taylor Way and St Paul Avenue. Low-lying areas surrounding Route 509 are also projected to experience flooding between the Thea Foss Waterway and Puyallup River under these conditions.

Under the 1% annual chance flood conditions with 2ft RSLR hazard exposure grows to encompass significant portions of local roadways within the MIC. Segments of Interstate 5 south of the Blair Waterway are also projected to experience flooding. Bridges crossing the Thea Foss Waterway, Puyallup River, and Hylebos Waterway have minimal flood hazard exposure across the 1ft and 2ft RSLR scenarios due to their elevation above grade or at Puyallup River levee height.

In addition to flood hazards, segments of Route 509 along the bluff toe in the northeastern portion of the study area are also currently susceptible to shallow and deep landslide hazards. Climate projections such as increased air temperature or increased intensity of extreme precipitation events can potentially exacerbate landslide hazards within the study area. Any increased frequency or severity of landslide hazards in these areas has the potential to further disrupt transportation functions along this corridor.

Hazard Sensitivity

The hazard sensitivity for transportation infrastructure is moderate overall, but is variable based on the type of hazard. Transportation infrastructure typically has a low sensitivity to shallow and short duration flooding, as minor flooding is unlikely to result in significant damage. This sensitivity can be reduced further if roadways subject to coastal flooding are constructed with corrosion resistant materials. As flooding becomes more frequent and severe, transportation infrastructure becomes more sensitive to hazards as longer interruptions in service and more extensive damage become likely along roadways. Transportation infrastructure along the shoreline is also sensitive to erosion and undermining, which can result in prolonged closures, safety concerns, and costly repairs. Widespread flooding, traffic congestion from road closures, or damage to key roads may also impact emergency response times.

Adaptive Capacity

Transportation infrastructure has a moderate adaptive capacity overall. Strategies such as elevating structures are generally more feasible for select portions of roadways as compared to residential or commercial development, but the locations of coastal roadways are often inflexible due to the lack of available area landward and the need to connect multiple high-use industrial services within the study area. Given these factors, adaptation strategies will likely require measures to accommodate extreme storm flood impacts and limit potential for more frequent tidal inundation events along coastal roadways as RSLR increases.

7.4 Environmental Resources

Hazard Exposure

Coastal environmental resources such as wetlands have a high exposure to RSLR hazards as these areas are continuously exposed to changes in tidal water elevations over time. While specific impact thresholds are challenging to quantify due to the number of interdependent ecological process involved, potential thresholds can potentially be estimated based on changes in high tide flood projections within the current wetland areas.

Hazard Sensitivity

Though wetlands are largely resistant to temporary inundation hazards, coastal wetlands can be highly sensitive to consistently elevated non-storm water levels, as these changes can significantly alter the structure and function of wetland ecosystems. This is particularly true if the inland migration of tidal floodwaters exceeds the landward migration rate or sediment accretion rate of wetland areas. If wetlands areas cannot match the gradual increase in tidal elevations due to RSLR these systems will gradually transition to subtidal areas, covered by water at all states of the tide.

Adaptive Capacity

The adaptive capacity of wetland areas is highly dependent on the ability of these natural features to maintain their relative elevation to water levels over time. In natural systems, sediment supply from river discharge or bluff erosion can offset the impacts of RSLR on wetland areas through sediment accretion, which increases land elevation over time. This potential adaptive capacity is highly dependent on a number of dynamic processes including rates of RSLR, coastal sediment accretion, and the ability of wetland species to colonize new areas, and as such may require ongoing monitoring efforts to ensure preservation of ecological functions. Alternative

methods such as thin-layer sediment placement may also be employed to mitigate RSLR impacts by gradually elevating wetland areas as tidal elevations increase.

7.5 Vulnerability and Risk

Results Summary

Exhibit 7-1 provides a summary of the overall vulnerability of coastal resources and infrastructure within the study area. Vulnerability falls into four categories: low (L), medium (M), high (H) and severe (S) based on the potential frequency and severity of climate hazard impacts.

Exhibit 7-1 Vulnerability Rating for Resources and Infrastructure within the Study Area.

Resource	RSLR-Related Hazards	RSLR Scenario				
		1ft	2ft	3ft	4ft	5 ft
Coastal Development						
Industrial Areas within MIC	Coastal/fluvial flooding	L	M	H	S	S
Development Bordering MIC	Coastal/fluvial flooding	M	M	H	S	S
Utilities Infrastructure						
Stormwater	Loss of function due to higher tidal elevations	M	M	M	H	S
Wastewater	Coastal/fluvial flooding	H	H	H	S	S
Water	Coastal/fluvial flooding	L	L	L	M	H
Power	Coastal/fluvial flooding	L	M	M	H	S
Transportation Infrastructure						
Highways	Coastal/fluvial flooding	L	M	M	H	H
Roadways	Coastal/fluvial flooding	M	M	H	H	S
Bikeways	Coastal/fluvial flooding	L	L	M	H	H
Trails	Coastal/fluvial flooding	L	L	M	H	H
Environmental Resources						
Wetlands	Habitat loss due to inundation	M	M	M	H	S

Low (L): Limited areas of vulnerability during extreme conditions
Medium (M): Significant areas of vulnerability during extreme conditions or limited vulnerability during normal conditions
High (H): Area-wide vulnerability under extreme conditions, or significant vulnerability under normal conditions
Severe (S): Area-wide vulnerability under normal conditions

As illustrated in Exhibit 7-1, vulnerability is variable across different resource types within the study area but is generally low to moderate for the 1ft and 2ft RSLR scenarios associated with a 20-year planning horizon. The exception to the overall trend is wastewater infrastructure, rated as highly vulnerable due to projected flooding of the Central Wastewater Treatment Plant under 1% annual chance flood conditions with 1ft RSLR. Extreme flood events have threatened this facility in the past, and ongoing mitigation strategies will likely be necessary given the potential for area-wide impacts if the facility is compromised.

High and severe vulnerability ratings become more common beyond the 20-year planning horizon at 3ft and greater RSLR scenarios. High vulnerability ratings for roadways and coastal development with 3ft RSLR are driven by widespread 1% annual chance flood projections and relatively low adaptive capacity for these types of infrastructure. Vulnerability becomes high to severe across all resource types for the 4ft and 5ft RSLR scenarios except for potable water infrastructure, which maintains moderate vulnerability under the 4ft RSLR scenario due to lack of projected flooding at pump stations.

In addition to vulnerability, resources and infrastructure within the study area are evaluated in terms of risk, a product of potential consequences and timing of hazard impacts. A simple scoring matrix was developed to assess the risk to coastal resources, presented in Exhibit 7-2. The risk scores range from R1 (lowest risk) to R4 (highest risk). Risk can be difficult to define because consequences are subjective, and the precise timing of future impacts are uncertain.

Consequences are determined for each asset qualitatively based on the vulnerability of each asset category. Urgency is determined by distinguishing between long-term and short-term RSLR thresholds. Short-term RSLR thresholds refer to impacts identified for the current sea level or up to 2ft RSLR. Long-term thresholds refer to impacts identified for 3ft and higher RSLR scenarios beyond the 20-year planning horizon of this study. Risk assessment results are presented in Exhibit 7-3.

Exhibit 7-2 Risk Assessment Scoring System

Consequence	Risk Score	
	Short-term RSLR Threshold SLR ≤ 2 ft	**Long-term RSLR Threshold** SLR ≥ 3 ft
High: Permanently damaged, large impact on system, large loss of value or life	**R4**	**R3**
Medium: Temporarily damaged but moderate impact on system, medium loss of value	**R3**	**R2**
Low: Temporarily damaged, low impact to system, small loss of value	**R2**	**R1**

Exhibit 7-3 Tideflats Resource Risk Assessment Matrix

Resource	RSLR Threshold	Consequence	Justification	Risk Score
Coastal Development				
Industrial Areas within MIC	Long-term (RSLR ≥ 3 ft)	High	Highly valuable industrial development critical to region	**R3**
Development Bordering MIC	Long-term (RSLR ≥ 3 ft)	Medium	Variety of uses, less dense than within MIC	**R2**
Utilities Infrastructure				
Stormwater	Short-term (RSLR ≤ 2 ft)	Medium	Temporary impact on infrastructure function	**R3**
Wastewater	Short-term (RSLR ≤ 2 ft)	High	Potential impacts to wastewater treatment plant	**R4**
Water	Long-term (RSLR ≥ 3 ft)	Medium	Potential impacts to pumps in coastal areas	**R2**
Power	Long-term (RSLR ≥ 3 ft)	High	Widespread impacts to substations	**R3**
Transportation Infrastructure				
Highways	Long-term (RSLR ≥ 3 ft)	High	Large impacts possible from temporary disruptions	**R3**
Roadways	Short-term (RSLR ≤ 2 ft)	Medium	Temporary disruptions may have impacts locally	**R3**
Bikeways	Long-term (RSLR ≥ 3 ft)	Low	Relatively minor impacts from temporary loss of service	**R1**
Trails	Long-term (RSLR ≥ 3 ft)	Low	Relatively minor impacts from temporary loss of service	**R1**
Environmental Resources				
Wetlands	Short-term (RSLR ≤ 2 ft)	Medium	Gradual loss of habitat areas	**R3**

Of the 11 resources categories examined, 4 displayed potential short-term (≤ 2ft) RSLR hazard thresholds: stormwater utilities, wastewater utilities, roadways, and wetlands. Of these resources, wastewater utilities receive the highest R4 risk rating due to projected flooding of the Central Wastewater Treatment Plant, a critical piece of infrastructure within the study area. Stormwater utilities and roadways receive lower R3 risk ratings as short-term impacts are more likely to be temporary disruptions in function or service as opposed to long-term infrastructure damage. Risk

for wetlands over the short-term is driven primarily by potential habitat loss, though these impacts will occur gradually and can be offset by timely mitigation actions.

Of the resource types with long-term (≥ 3ft) RSLR hazard thresholds, industrial development within the MIC, power utilities infrastructure, and highway infrastructure warranted R3 risk ratings based on the high consequences of hazard impacts. While 3ft and greater RSLR scenarios are outside of the 20-year planning horizon of this study, potential impacts to these resources may warrant consideration in adaptation strategy planning given their critical nature.

Key Takeaways

- Flood projections under 1% annual chance conditions within the MIC largely remain limited to select low-lying areas up to the 3ft RSLR scenario, where projections become widespread. This magnitude of RSLR is beyond a 20-year planning horizon and has approximately a 1% chance of being exceeded by 2070.
- Flooding due to inundation within the MIC during normal tidal cycles is not projected to occur until 4ft and greater RSLR scenarios. RSLR of this magnitude is not projected within a 20-year planning horizon and has only a 5% chance of being exceeded by 2100.
- Climate vulnerability is low to moderate over a 20-year planning horizon for the majority of resources within the study area.
- Wastewater infrastructure has the highest hazard vulnerability and risk due to projected flooding of the Central Wastewater Treatment Plant under short-term RSLR scenarios. The City has taken action to mitigate this risk by constructing a flood wall at the facility. Continued evaluation of flood protection infrastructure and projections at this site is warranted due to the critical nature of the infrastructure.
- Projected impacts over a 20-year planning horizon are primarily driven by increased flood projections during extreme flood events, leading to temporary flooding of roadways and development in low-lying areas. Resources such as stormwater infrastructure or wetlands that are sensitive to tidal elevations may also experience gradual loss of function over the short term.

Next Steps

Despite the potential for significant long-term RSLR hazards and the complexities of adaptation, numerous opportunities are available to mitigate RSLR hazards within the Tacoma Tideflats. Area-wide measures such as increased elevation and improved drainage patterns are key aspects of long-term RSLR adaptation that should be considered throughout the early stages of any redevelopment or infrastructure design. RSLR hazard resilience can then be supplemented by

adaptation measures designed to protect against or accommodate future RSLR hazards. The following objectives have been identified for use in ongoing adaptation efforts at the study area.

Account for up to 2ft RSLR in the short-term design and 5ft RSLR in the long-term planning of high-risk resources

Major, high-risk infrastructure and major utilities that cannot tolerate flooding should consider the potential for severe, low-probability RSLR scenarios at long-term time horizons to avoid potential future loss of key services and minimize the need for costly adaptation measures at a later date. Given these potential consequences, planning for up to 5ft RSLR may be appropriate for resources with 50+ year design lives.

Utilize lower, less conservative RSLR projections in the planning of low-risk resources

Design of lower risk resources such as public spaces and trails that can tolerate infrequent flooding may consider less severe RSLR scenarios initially but should incorporate strategies to increase flood protection levels over time if necessary. Planning for 1ft RSLR over the short term may be appropriate for such resources given the less severe consequences of flooding.

Employ a phased RSLR adaptation approach

A phased approach, where additional measures are implemented as identified RSLR risk thresholds are exceeded, allows project adaptation strategies to adjust over time as needed, reducing the chances of over or underestimating hazard mitigation needs. A critical aspect of phased RSLR adaptation is that initial planning accounts for potential future adaptation measures. Supplementary adaptation measures can then be implemented and adjusted over time, such as increasing the capacity of a floodwall base and tie back to allow for increased elevation once freeboard is reduced below an identified threshold.

Monitor and re-evaluate SLR hazards on a regular basis

RSLR science will continue to evolve over the coming decades. Monitoring observed changes in water elevations at the project site and tracking any changes in RSLR projections will be critical to informing ongoing RSLR adaptation efforts.

Maintain flexibility in SLR adaptation strategies

New or redeveloped infrastructure and short-term RSLR adaptation measures should be designed in a manner that does not preclude implementation of future adaptation strategies geared toward more severe RSLR scenarios. This can be accomplished in a number of ways such as maintaining a buffer area between the shoreline and critical infrastructure.

Coordinate RSLR adaptation efforts with regional initiatives

Where possible, coordination with any regional adaptation strategies will improve hazard resilience both at the study area and throughout the region. This is especially true when

considering the interaction of coastal and fluvial flood hazards that can be impacted by upstream activities.

Seek and attempt to maximize potential hazard mitigation co-benefits

Adaptation efforts such as wetland restoration have the potential to serve both as a public resource and flood hazard mitigation measure. Integrating these RSLR adaptation measures with the potential for co-benefits into overall adaptation strategies has the potential to facilitate RSLR adaptation across the study area.

Recommended Actions

A number of actions to address climate hazard projections and vulnerabilities have been identified as part of this study. The following areas and actions are recommended to be further studied as highest priorities to be addressed over a 20-year planning horizon.

- Implementing flood mitigation measures in low-lying areas surrounding drainage canals within the MIC and surrounding areas.
- Implementing flood mitigation measures for the low-lying area in the southern portion of the Thea Foss Waterway at the Route 509 bridge.
- Mitigating projected flood hazards for low-lying areas of I5 south of the Blair Waterway.
- Improving flood mitigation efforts at the Central Wastewater Treatment Plant as necessary to account for the compounding effects of increased coastal and fluvial flood projections due to RSLR and changes in regional hydrology.
- Implementing or improving landslide hazard protection along Route 509.
- Incorporating climate hazards into existing hazard and ecological monitoring and management efforts.

APPENDIX H Economic Development

The attached Chapter 10, *Economic Development*, was extracted from the *Tacoma Tideflats Subarea Plan & EIS Draft Baseline Report* (May 2023).

10 ECONOMIC DEVELOPMENT

This chapter describes existing economic activities, market conditions, policies and regulations related to economic development, and identified findings and implications for the Subarea Plan.

10.1 Existing Policies and Regulations

The study area, the Port of Tacoma MIC, is of great significance to the City of Tacoma, the Puyallup Tribe, the Port of Tacoma, Pierce County, and the City of Fife. As a result, many of these jurisdictions have some form of adopted economic development strategies relating to the Port of Tacoma MIC area.

Local Policy Framework

City of Tacoma

One Tacoma Comprehensive Plan

The City of Tacoma has a variety of strategies outlined in it is *One Tacoma* Plan, which is the City's Comprehensive Plan. Within the Port Container Element, the City outlined the following policies regarding the Port of Tacoma MIC (City of Tacoma, 2019):

Goal CP–3. *Promote the continued growth and vitality of port and port-related industrial activity.*

> ***Policy CP–3.1:*** *Work in partnership with the Port of Tacoma to target and recruit new businesses that support port and port-related industrial activity.*
>
> ***Policy CP–3.2:*** *Identify and consider opportunities to remove obstacles to development and to incentivize businesses that support container port and port-related industrial activity.*
>
> ***Policy CP–3.3:*** *Consider coordinating an industrial development workforce program for local citizens. Act as a facilitator between businesses, educational institutions, trade associations and residents in order to reduce the workforce development burden of individual businesses and expand employment opportunities for citizens.*

Policy CP–3.4: *In order to build on the port area's reputation as a prime location of port related industry, seek opportunities, such as speaking engagements, articles and others, to highlight economic development success stories in the port area.*

In addition, the City's Comprehensive Plan also outlined the following policies regarding manufacturing/industrial centers in its Economic Development Element (City of Tacoma, 2019):

Manufacturing/Industrial Centers

Policy EC–6.19. *Provide industrial land and encourage investment in necessary services that support industrial business retention, growth and traded sector competitiveness as a West Coast trade and freight hub, a regional center of diverse manufacturing and a widely accessible base of living wage jobs, particularly for underserved and underrepresented people.*

Policy EC–6.20. *Strictly limit Comprehensive Plan Map amendments that convert industrial land and consider the potential for amendments to otherwise diminish the economic competitiveness or viability of prime industrial land.*

Policy EC–6.21. *Protect and preserve sufficient land use capacity for water-dependent and related industrial uses within the city's industrial shorelines.*

Policy EC–6.22. *Maintain properties currently developed with industrial users and strive to offset the reduction of development capacity with the addition of prime industrial capacity that includes consideration of comparable site characteristics.*

Policy EC–6.23. *Pursue regional capital improvement opportunities to provide a competitive advantage for Tacoma's industrial districts and ensure that industrial districts have the necessary infrastructure and capacity to support businesses engaged in activities such as transportation, logistics and international trade.*

Policy EC–6.24. *Coordinate with the Port to market and recruit businesses to vacant and undeveloped Port-owned properties.*

Policy EC–6.25. *Take advantage of trade relationships established by the Port of Tacoma to promote business attraction and expansion.*

Policy EC–6.26. *Promote and administer a sister cities program that encourages international partnerships and exchanges focused on education, culture, trade, foreign direct investment and business attraction.*

Policy EC–6.27. *Explore expansion of the Urban Clean Water Technology Innovation Partnership Zone and continue to support marketing of available properties.*

Shoreline Master Plan (2019)

The City also has several economic development objectives outlined for its shoreline areas the economic development element of its Shoreline Master Plan. This element provides for the location and design of industries, transportation facilities, port facilities, tourist facilities, commerce and other

developments that are particularly dependent upon a shoreline location and/or use of the shorelines of the state. The economic development objectives are as follows (City of Tacoma, 2019):

- Preference should be given to water-dependent uses. Secondary preference should be given to water-related and water-enjoyment uses.
- Encourage new economic development to locate in areas that are already developed with similar uses.
- Encourage new economic uses that create family wage jobs and employment.
- Ensure that only those new industries that are either water-dependent or water-related operate in the shoreline area.
- Implement economic development policies contained in the Comprehensive Plan in shoreline areas consistent with this Program and the Act.
- Encourage economic development that has minimal adverse effects and mitigates unavoidable impacts upon shoreline ecological functions and processes and the built environment.
- Support the long-term and widespread economic contribution of our international container ports and related industrial lands and transportation systems and ensure that container ports continue to function effectively alongside vibrant city waterfronts.
- Encourage shoreline development that has a positive effect upon economic and social activities of value to the City and region.

North Downtown Subarea Plan (2014)

The *North Downtown Subarea Plan* covers northern Downtown Tacoma, northern Thea Foss Waterway, and land to the east of Foss Waterway, as well as the Murray Morgan (11th Street) Bridge (City of Tacoma, 2014). The Subarea Plan has the following relevant economic development actions:

> ***Action ED-1.*** *Proactively collaborate with Tacoma's larger employers to attract further investment in North Downtown*

South Downtown Subarea Plan (2013)

The *South Downtown Subarea Plan* includes portions of the study area including the southern stretch of Thea Foss Waterway, land to the east of Foss Waterway, and the vicinity of Puyallup Avenue and E 26th Avenue west of E G Street as well as the SR 509 bridge (City of Tacoma, 2013). The Subarea Plan has policies to advance the development of the Foss Waterway, including:

> ***Policy 5.2.*** *Maximize redevelopment potential on the Foss through strategic planning and targeted investments*
>
> ***Policy 5.4.*** *Leverage the Waterway's potential as an urban amenity that catalyzes economic development in South Downtown*

Port of Tacoma Land Use and Transportation Plan (2014)

The Port of Tacoma's *Land Use and Transportation Plan* establishes a development vision for all port-owned property in the Tideflats area (Port of Tacoma, 2014). The vision identifies seven development designations that are consistent with adopted City of Tacoma land use and shoreline regulations. The seven designations are:

- **Marine Terminal 1:** This designation is intended to preserve lands with deep water access for marine cargo terminals and facilities.
- **Marine Terminal 2:** The development vision for this designation is to preserve waterfront land with non-deep-water access for shallow draft water-dependent commercial and maritime uses.
- **Marine Services:** This designation provides area for marine-related industries that benefit from direct water access or close proximity to navigable waters.
- **Industrial/Maritime Support:** The development vision for this designation is primarily for industrial development that supports the cargo terminals, such as transload, warehouse, and rail uses, as well as a range of complementary industrial, warehousing, and office uses.
- **Commercial and Mixed Commercial/Maritime Industrial:** This designation supports industrial development in the Tideflats area through complementary office and commercial uses.
- **Public Utilities:** This designation is for facilities that are part of the essential infrastructure serving the Port of Tacoma.
- **Habitat/Public Access:** This designation is for habitat mitigation sites.

City of Fife Comprehensive Plan

Much of the area just south of the MIC is zoned Regional Commercial by the City of Fife, along with some pockets of Industrial zoning. In the City's Economic Development Element of its Comprehensive Plan, the City of Fife has the following relevant policies toward the Port of Tacoma MIC (City of Fife, 2020):

Policy 1. *Strategically coordinate economic development planning efforts and establish partnerships with other economic development organizations.*

> ***Implementation 1.1.*** *Work with other public agencies and private interests, including the Economic Development Board (EDB), Port of Tacoma, Chamber of Commerce, Washington State Departments, and others to coordinate resources, programs, promotions, information tools, and other materials to recruit and successfully locate new business interests in Fife.*
>
> ***Implementation 1.3.*** *Coordinate recruitment and retention efforts with other organizations.*
>
> ***Implementation 1.5.*** *Work with other agencies involved in economic development to identify and support established and emerging clusters that export goods and services, import capital and have growth potential.*

Policy 4. *Expand socioeconomic* ***opportunities for residents of the City.***

> ***Implementation 4.1.*** *Work with other public agencies and private interests, including the Economic Development Board, Port of Tacoma, Chamber of Commerce, and others to inform businesses of employment, occupational training and advancement programs.*
>
> ***Implementation 4.3.*** *Actively recruit business enterprises that will provide resident household working member's employment wages at or above County median income levels.*

County Policy Framework

Pierce County Countywide Policies

Pierce County's *Countywide Planning Policies (CPP)* outlines countywide economic development goals and policies (Pierce County, 2020). These goals call for achieving a prospering and sustainable regional economy by supporting business and job creation investing in all people, sustaining environmental quality, and creating great central places, diverse communities, and high quality of life. Specific goals relevant to the Port of Tacoma MIC include:

- **Goal 1.1:** Considering the future development of commercial and industrial facilities [RCW 36.70A.210(3)(g)] and creating in the land use element of each comprehensive plan a designation of areas for "commerce" and "industry" [RCW 36.70A.070(1)].
- **Goal 1.3:** Designating and zoning large tracts of developable land equitably distributed throughout the various jurisdictions based on the related population, employment base and land areas of the jurisdiction for planned commercial and industrial centers, and local housing and employment targets.
- **Goal 1.6**: Developing and adopting standards at the municipal level to guide commercial and industrial development in a setting that is appropriately landscaped.
- **Goal 1.8:** Leveraging the region's and county's position as an international gateway by supporting businesses, ports, and agencies involved in trade-related activities.
- **Goal 1.10:** Maximizing the use of existing designated manufacturing and industrial centers by focusing appropriate types and amounts of employment growth in these areas and by protecting them from incompatible adjacent uses.
- **Goal 2.9:** Targeting the appropriate creation and retention of specific firms and industries within established and emerging industry clusters that export goods and services, import capital, and have growth potential.
- **Goal 5.7:** Concentrating a significant amount of economic growth in designated centers.
- **Goal 5.8:** Ensuring the efficient flow of people, goods, services, and information in and through the region with infrastructure investments, particularly in and connecting designated Centers.

As mentioned above, the Port of Tacoma MIC has been designated as a Manufacturing/Industrial Center under the Regional Growth Strategy for Pierce County. These Centers are areas where employee- or land-intensive uses are located. These areas are characterized by a significant

amount of manufacturing, industrial, and advanced technology employment uses. Large retail and nonrelated office uses are discouraged. Other than caretakers' residences, housing is prohibited within Manufacturing/Industrial Centers. However, these Centers should be linked to high density housing areas by an efficient multimodal transportation system. The efficiency of rail and overland freight to markets is the critical element for manufacturers and industries located in these Centers.

Regional Policy Framework

PSRC Vision 2050

The Puget Sound Regional Council (PSRC)'s *Vision 2050* plan, which establishes a long-term land use and transportation framework for the region, designates the Tideflats as one of ten Manufacturing/Industrial Centers (MIC) in the region (PSRC, 2019). The Tideflats is one of four MICs designated as industrial growth centers. Vision 2050 recognizes MICs as important employment locations that preserve lands for living-wage jobs in basic industries and trade and provide areas for employment to grow in the future. Vision 2050 calls for the provision of infrastructure and services in MICs necessary to serve intensive manufacturing and industrial activity. MICs are given funding priority both for transportation infrastructure and for economic development.

State and Federal Policy

State of Washington Maritime Sector Strategy

In 2013, the Washington State Department of Commerce developed a study on the State's Maritime sector in response to a State legislature directive to develop "an economic cluster strategy to leverage the state's unique maritime assets, geography, history, and infrastructure. Goals include growing employment, targeted economic activity, environmental considerations, tax revenue to state and local governments, and quality of life associated with the maritime sector by working with the industry to understand workforce needs, parity considerations with Oregon and British Columbia, and tax structure and regulatory barriers" (ESSB 5034 Chapter 4, Laws of 2013, 128(15)).

Relative to the State's ports, especially the Ports of Tacoma and Seattle, the study found the following strategies that could help support the State's ports continued competitiveness:

- Funding transportation infrastructure, specifically, investment in freight related projects such as the Puget Sound Gateway.
- Exploring tax incentives to encourage shippers to move additional cargo through the state.
- Considering the potential negative impacts tax, environmental, and regulatory policies could have on freight movement, trade, and port activity.

Puyallup Tribe of Indians Land Claims Settlement (1990)

In 1990, the Puyallup Tribe of Indians and the Port of Tacoma, along with numerous other governments and private entities entered into a Land Settlement Agreement. Among other elements of the agreement was the return of close to 900 acres of land to the Tribe, including land on the Blair Waterway. This land on the Blair Waterway was envisioned by both the Port and the Tribe to be developed as an international marine terminal.

In 2008, the Tribe and the Port signed economic development agreements to aid in the development of facilities on the Blair-Hylebos Peninsula through the incorporation of the Tribe's economic arm Marine View Ventures. As part of the agreement, the parties agreed to cooperate on the ongoing development of properties on the Blair Waterway.

Marine View Ventures objectives are to increase the land asset base for the Tribe and to create jobs and job training opportunities for tribal members. Economically, MVV is focused on leveraging its existing assets to generate returns for the Tribe and its strategic partners.

10.2 Current Conditions

COVID-19 Pandemic

The information below is based on information available prior to the COVID-19 pandemic which has severely impacted Tacoma's economy. The following is a discussion of economic impacts and trends in the Tacoma Metropolitan Statistical Area (MSA) from the COVID-19 pandemic:

- The economy in the Tacoma MSA has begun to recover; however, it remains far below pre-pandemic activity. As of December 2020, the Tacoma MSA's nonfarm employment has gained back about half of the jobs lost in March, April, and May of 2020. However, nonfarm employment was still around 16,000 jobs below pre-pandemic employment levels.[18]
- Economic impacts are uneven among industries. As of December 2020, manufacturing employment in the Tacoma MSA was around 1,300 jobs or 7% below February 2020 levels. Meanwhile, as of December 2020, employment in wholesale trade, transportation, and utilities (WTU) has increased 600 jobs or 1% above February 2020 levels, largely driven by increases in employment for warehousing and transportation.
- At the state level, Washington State's Economic and Revenue Forecast Council (ERFC) November 2020 forecast projects that manufacturing employment at the state level will

[18] Washington State Employment Security Department Employment Estimates, https://esd.wa.gov/labormarketinfo/employment-estimates

continue to decline in 2021 and 2022 to around 10% below 2019 levels before beginning to stabilize and grow from 2022 to 2025, the latest year of the ERFC's forecast.[19]

History

The Tideflats has an established history of maritime industrial activity, dating back to the 1800s. Early uses included lumber and shingle mills, as well as shipyards, flour mills, electrometallurgy, and electrochemical companies.

Port of Tacoma MIC

The MIC is an active industrial area with significant existing jobs in core industrial sectors and is a catalyst for significantly more related and indirect jobs throughout the region. The area has a long history of industrial employment and is a key component of a regional industrial ecosystem. The study area's industrial strengths center around the warehousing, transportation, and utility (WTU) sector which is closely related to the Port of Tacoma's presence in the study area.

The Port of Tacoma enjoys assets such as a strategic location relative to the origins and destinations of container traffic, a naturally deep harbor with the ability to accept large ships, presence of a robust set of terminal facilities as a result of significant public investment, and efficiency of cargo handling operations. The Port of Tacoma's activities are centered around the port and industrial lands adjoining the Hylebos Waterway, Blair Waterway, Sitcum Waterway, Puyallup River, Saint Paul Waterway and Middle Waterway. The study area is home to a wide mix of industrial uses, including cargo terminals, manufacturers, warehouses, repair facilities, rail yards, and others.

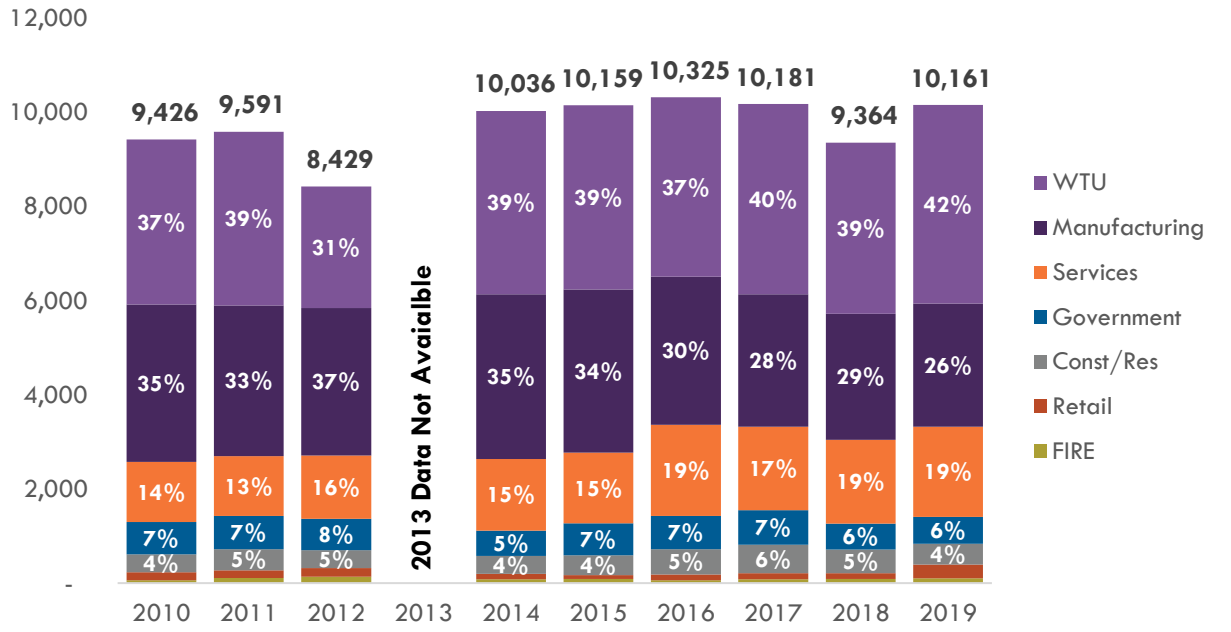
Economic and Employment Profile

As of 2019, total employment within the Port of Tacoma MIC was 10,161, an increase of 735 jobs over the past 10 years. About 68% of employment in the MIC is within the Wholesale Trade, Transportation, and Utilities (WTU) sector (42%) as well as the Manufacturing sector (26%). Much of the growth over the past ten years has been driven by the WTU sector while the Manufacturing sector has shrunk from 2010 levels. See Exhibit 10-1.

Other significant industry sectors include Services (19%), Government (6%), and Construction & Resources (4%).

[19] Washinton State Economic and Revenue Forecast Council November 2020 Economic and Revenue Forecast, https://erfc.wa.gov/publications/quarterly-updates

Exhibit 10-1 Tacoma MIC Employment by Sector, 2010-2019

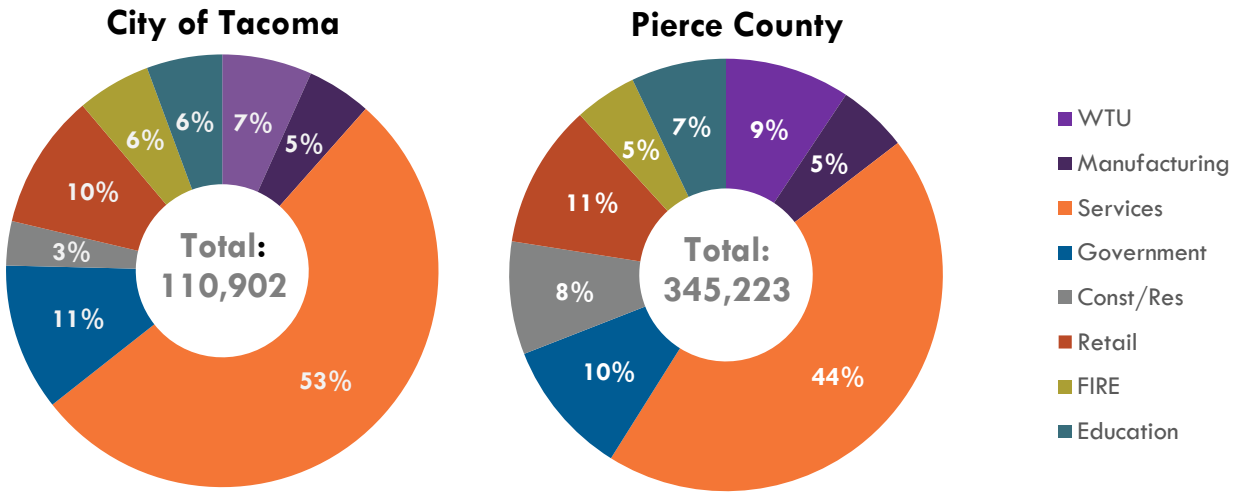


Year	Const/Res	FIRE	Manufacturing	Retail	Services	WTU	Government	Total
2010	378	60	3,342	172	1,284	3,504	686	**9,426**
2011	455	112	3,198	157	1,273	3,693	703	**9,591**
2012	381	137	3,135	183	1,341	2,583	669	**8,429**
2013								
2014	382	84	3,501	112	1,528	3,894	535	**10,036**
2015	420	89	3,469	81	1,506	3,915	679	**10,159**
2016	543	64	3,145	117	1,939	3,813	703	**10,325**
2017	607	82	2,810	130	1,778	4,044	730	**10,181**
2018	504	90	2,679	119	1,784	3,639	549	**9,364**
2019	437	103	2,619	294	1,912	4,220	576	**10,161**

Notes: Total employment estimates for 2013 are currently unavailable.
Source: PSRC, 2020; BERK, 2020.

Exhibit 10-2 outlines Tacoma's and Pierce County's employment by sector for 2019, respectively. Manufacturing and WTU jobs make up about 12% and 14% of Tacoma's and Pierce County's total employment, respectively. Services are by far the most significant employment sector in both Tacoma and Pierce County at 53% and 44% of Tacoma's and Pierce County's total employment, respectively.

Exhibit 10-2 Tacoma and Pierce County Employment by Sector, 2019

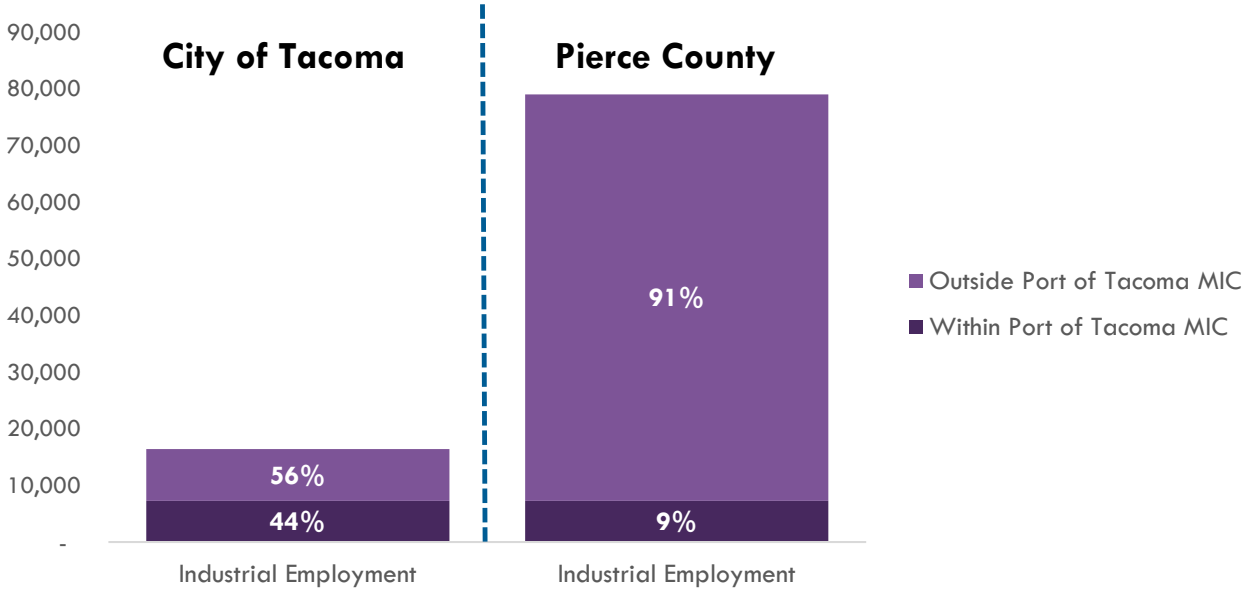


Source: PSRC, 2020; BERK, 2020.

With increased competition stemming from globalization, U.S. domestic industrial activity has grown to include the storage and transportation of goods and products on their way to final consumer in addition to more traditional industrial production activities like manufacturing. A modern definition of the industrial sector describes a range of activities centered on not just the production, but including distribution, and repair of goods and materials. For the purposes of this study, we define the industrial sector as including Manufacturing, WTU (Warehousing, Transportation, and Utilities), and Construction and Resources.

Unsurprisingly given its status as a one of three manufacturing industrial centers in Pierce County, the Port of Tacoma MIC region accounts for a significant portion of both the City of Tacoma's and Pierce County's industrial employment. Exhibit 10-3 outlines the share of Tacoma's and Pierce County's industrial employment coming from within the Port of Tacoma MIC and the share coming from outside the Port of Tacoma MIC.

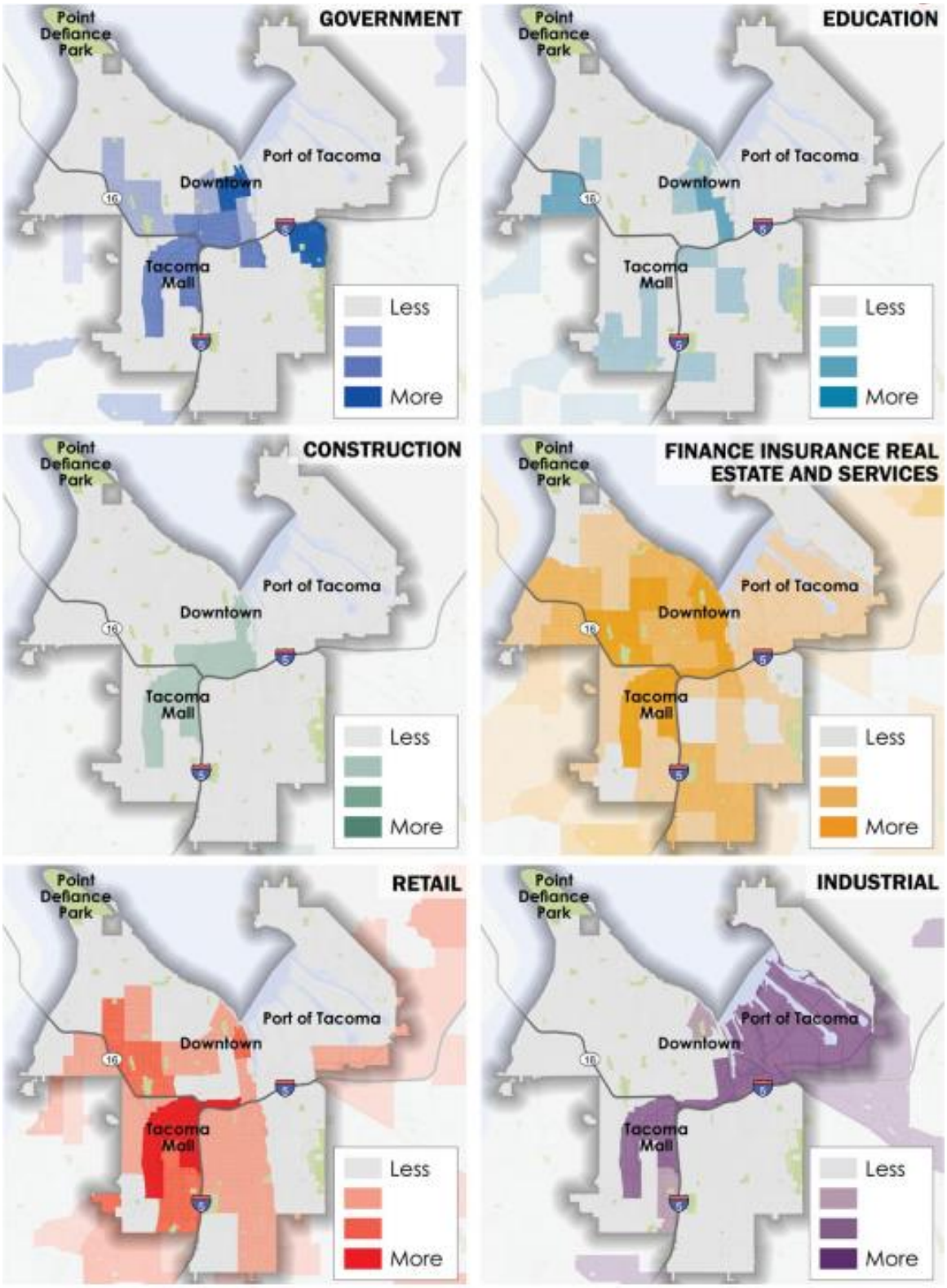
Exhibit 10-3 Share of Industrial Employment Within the Port of Tacoma MIC – Tacoma and Pierce County, 2019



Notes: Industrial employment defined as including manufacturing, WTU, and construction and resources jobs.
Source: PSRC, 2020; BERK, 2020.

Industrial jobs in the Port of Tacoma MIC account for 44% of all industrial jobs in Tacoma. Other clusters of industrial jobs in Tacoma include the southern portion of Central Tacoma around the Interstate 5(I-5) and Highway 16 (WA-16) crossing as well as portions of South Tacoma alongside both sides of South Tacoma Way. Industrial jobs in the city of Tacoma are clustered in these two areas while jobs in other sectors are more distributed across the city. This pattern likely reflects the locational needs and advantages of the study area and South Tacoma for industrial uses as well as zoning and land use regulations within the city. See Exhibit 10-4.

Exhibit 10-4 Employment Concentrations by Major Industry – City of Tacoma, 2015



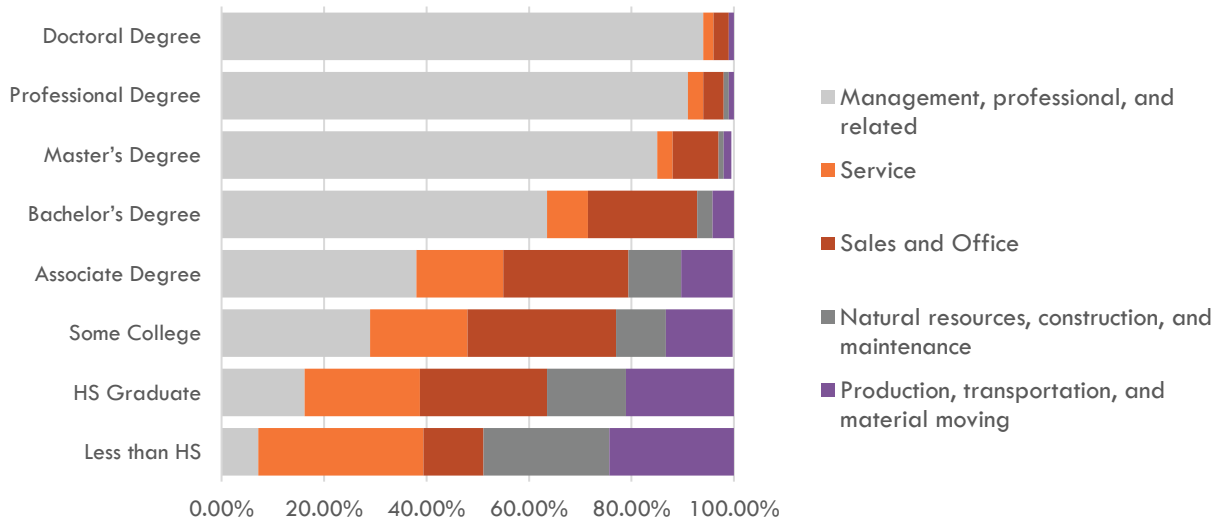
Source: City of Tacoma, 2015.

Industrial jobs in the Port of Tacoma MIC account for 9% of all industrial jobs in the County. In comparison, the Frederickson MIC accounted for about 4% of all industrial jobs in the County as of 2010 while the Sumner-Pacific MIC accounted for about 14% of all industrial jobs in the County as of 2015.[20]

Industrial jobs can be a significant source of employment for people without high educational attainment levels. A large portion of Tacoma's population experiences barriers to employment due to lower education levels, less specialized or technical skillsets, language barriers, or lack of transportation or mobility. Only about 39% of Tacoma's population that is 25 years and above have a college degree.

As shown in Exhibit 10-5, occupations in production, transportation, and material moving as well as natural resources, construction, and maintenance are a strong source of employment for the employed civilian workforce without college degrees.

Exhibit 10-5 Educational Attainment by Occupation – Employed Civilian Workforce, 2016



Sources: BLS, 2016; BERK, 2020.

For workers without a college degree and/or lower skilled workers, industrial jobs can typically provide higher wages, better benefits, and better opportunities for career advancement and skill development compared with other employment opportunities (Exhibit 10-6). For some workers in the region, these industrial jobs are a pathway to economic advancement.

[20] Employment density alone does not capture the extent and impact of industrial activity, especially for an area like the Port of Tacoma MIC, since trends such as containerization have reduced the need for personnel but increased productivity.

Exhibit 10-6 Industrial Sectors Compared With Other Sectors – Tacoma, 2018

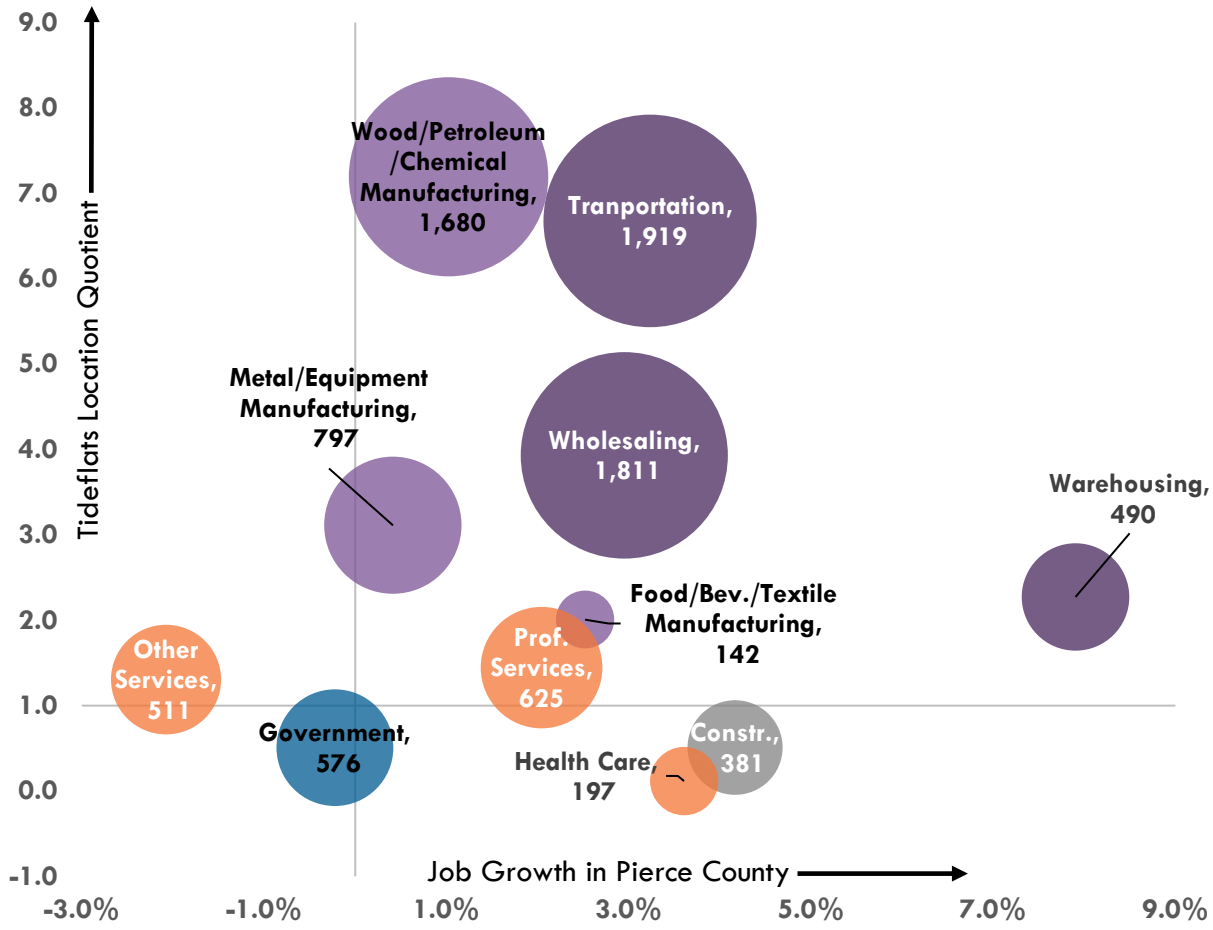
Sector	Employment	%	Median Annual Earnings
Industrial: Manufacturing, WTU, and Construction			
Manufacturing	**8,922**	**8.7%**	**$46,802**
Transportation and warehousing, and utilities	**6,447**	**6.3%**	**$41,726**
Wholesale trade	**2,906**	**2.8%**	**$47,832**
Construction	**6,711**	**6.5%**	**$42,893**
Services			
Educational services, and health care and social assistance	25,084	24.4%	$39,701
Arts, entertainment, and recreation, and accommodation and food services	10,883	10.6%	$22,323
Professional, scientific, and management, and administrative and waste management services	9,925	9.7%	$51,458
Other services, except public administration	5,347	5.2%	$27,851
Information	1,862	1.8%	$49,432
Retail			
Retail trade	12,012	11.7%	$27,925
Resources			
Agriculture, forestry, fishing and hunting, and mining	623	0.6%	$24,634
Government			
Public administration	6,680	6.5%	$59,638
Finance, Insurance, and Real Estate (FIRE)			
Finance and insurance, and real estate and rental and leasing	5,230	5.1%	$41,058

Sources: American Community Survey (ACS) 5-Year Estimates, 2014-2018; BERK, 2020.

Port of Tacoma MIC Competitive Strengths

The Port of Tacoma MIC has competitive strengths in the sectoral clusters of manufacturing as well as WTU (Exhibit 10-7). To identify competitive strengths, BERK utilized cluster analysis based on employment data categorized to two-digit NAICS sub-sector codes derived from the Puget Sound Regional Council (PSRC). On the vertical axis of Exhibit 10-7 is the location quotient of each cluster, with sub-sectors with location quotients greater than 1.0 representing sub-sectors that have a greater concentration in the Port of Tacoma MIC than elsewhere in Pierce County. On the horizontal axis is compound annual employment growth in Pierce County over the last ten years from 2010 to 2019. The size of the bubbles represents the employment in each sub-sector in the Port of Tacoma MIC for 2019.

Exhibit 10-7 Location Quotient and Job Growth Analysis, 2019



Note: Job growth is calculated by taking the compound annual growth rate for each industry sector between 2010 to 2019 for Pierce County. Location quotients are calculated using 2019 employment information provided by PSRC.
Sources: PSRC, 2020; BERK, 2020.

The upper right-hand quadrant of the graph shows the sub-sectoral clusters in the Port of Tacoma MIC with the highest concentration of jobs and highest employment growth. Sub-sectors with both high concentration of jobs and relatively high employment growth include transportation, warehousing, and wholesaling – all sub-sectors associated with the WTU sector. The transportation (6.7 location quotient) and wholesaling (3.9 location quotient) sub-sectors are highly concentrated in the Port of Tacoma MIC. Employment in the transportation subsector is likely fueled by Port of Tacoma marine cargo operations as well as related private businesses involved in general freight trucking, coastal freight transportation, pipeline transportation, general warehousing, and storage, among others. The wholesaling subsector is made up of a diverse array of private firms wholesaling motor vehicle parts, lumber, construction equipment, professional and industrial supplies, hardware, fresh fruit, and groceries, etc.

Other sub-sectors highly concentrated in the MIC include wood, petroleum, and chemical manufacturing (7.2 location quotient) as well as metal and equipment manufacturing (3.1 location quotient). Firms in the metal and equipment sub-sector include such businesses as boat and shipbuilding firms, firms related to iron foundries and metal manufacturing, and firms manufacturing motor vehicle parts, among others. These sub-sectors are also among the slowest growing sub-sectors in Pierce County over the last several years. One potential cause for the slowing growth of these manufacturing sub-sectors may be recent innovations such as increasing automation. Studies suggest a negative relationship between automation and routine manual employment in local labor markets (Bharadwaj and Dvorkin, 2019).

Employment Centers and Location

Jobs within the MIC include employment from the Port of Tacoma as well as employment from private firms within the area. Employment supported by the Port of Tacoma includes both jobs supporting the Port's marine cargo operations as well as jobs with tenants and/or businesses leasing Port of Tacoma real estate property.

In 2015, the Port of Tacoma and Port of Seattle combined marine cargo operations to form the Northwest Seaport Alliance (NWSA). Information on employment supporting marine cargo operations is available for NWSA based on a recent economic impact analysis produced for NWSA in October 2019, but not for the Port of Tacoma specifically. As shown in Exhibit 10-8, employment supporting marine cargo operations at NWSA was around 20,100 in 2017. Employment with tenants or other businesses leasing real estate from the Port of Tacoma was around 1,500 in 2017.

Other employment within the Port of Tacoma MIC comes from private businesses. A 2019 study from the Center of Business Analytics at the Milgard School of Business at the University of Washington-Tacoma estimated that employment from private businesses in the MIC was around 5,165 (Bergman, 2019). As of 2019, PSRC data on employment indicates there is a total of 10,161 jobs within the MIC.

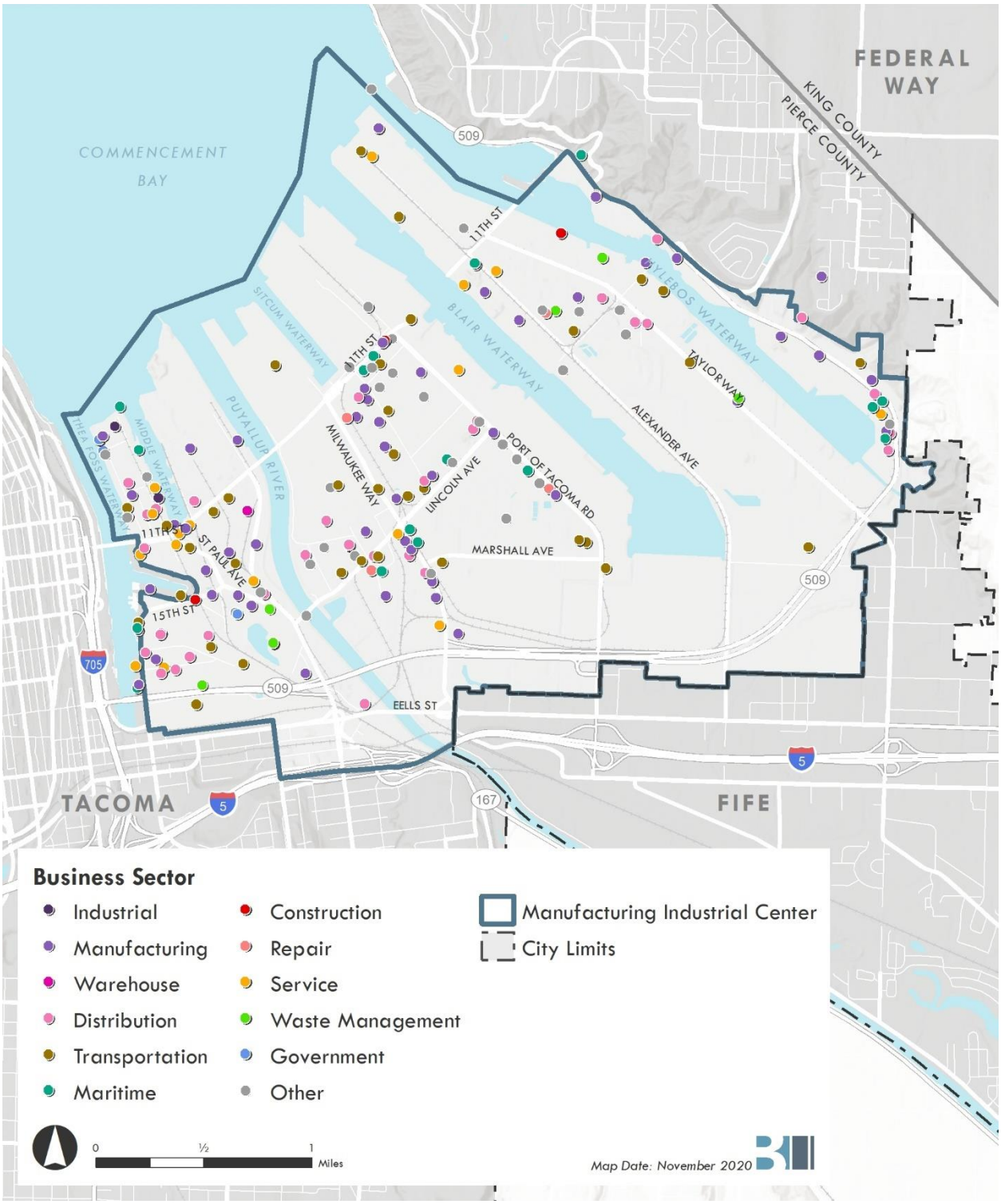
Exhibit 10-8 Employment in the Port of Tacoma MIC

Category	Jobs
Port of Tacoma – Marine Cargo Operations	12,950 (2017)
Port of Tacoma Tenants and Other Business	1,500 (2017)
Port of Tacoma MIC	10,161 (2019)

Note: Northwest Seaport Alliance includes Port of Seattle employment as well as Port of Tacoma employment.
Sources: CAI, 2019; Center for Business Analytics at Milgard School of Business University of Washington, Tacoma, 2019; PSRC, 2020; BERK, 2020.

As mentioned previously, significant sub-sectors of employment from private businesses include paper and wood manufacturing, metal and equipment manufacturing, wholesaling, transportation/distribution, and warehousing/storage. These sub-sectors can often be complementary and, as a result, many firms within these sub-sectors may often be located together to take advantage of synergies. In the Port of Tacoma MIC, many of these private businesses are clustered together in the western portion of the MIC alongside the Thea Foss and Middle waterways as well as in the central portion of the MIC between the Puyallup River and Blair Waterway below the Port of Tacoma's Marine Terminal (Exhibit 10-9). Mapping of firms in the MIC is based on a 2019 study done by the School of Engineering and Technology at the University of Washington – Tacoma (West, 2019).

Exhibit 10-9 Map of Firms by Sector



Note: Mapping based on existing 2019 study from UW-Tacoma with additional sector classification done by BERK.
Sources: School of Engineering and Technology, University of Washington – Tacoma, 2019; BERK, 2020.

Journey-to-Work Analysis

Exhibit 10-10 shows inflow and outflow for all jobs in the Port of Tacoma MIC for 2017. The MIC primarily sees workers who live outside of the area commuting in for work and sees very few residents who live in the area. About 8,229 workers are estimated to commute into the area for work while 353 residents are estimated to leave the area to work in another location. Only 17 residents are estimated to live and work in the MIC area.

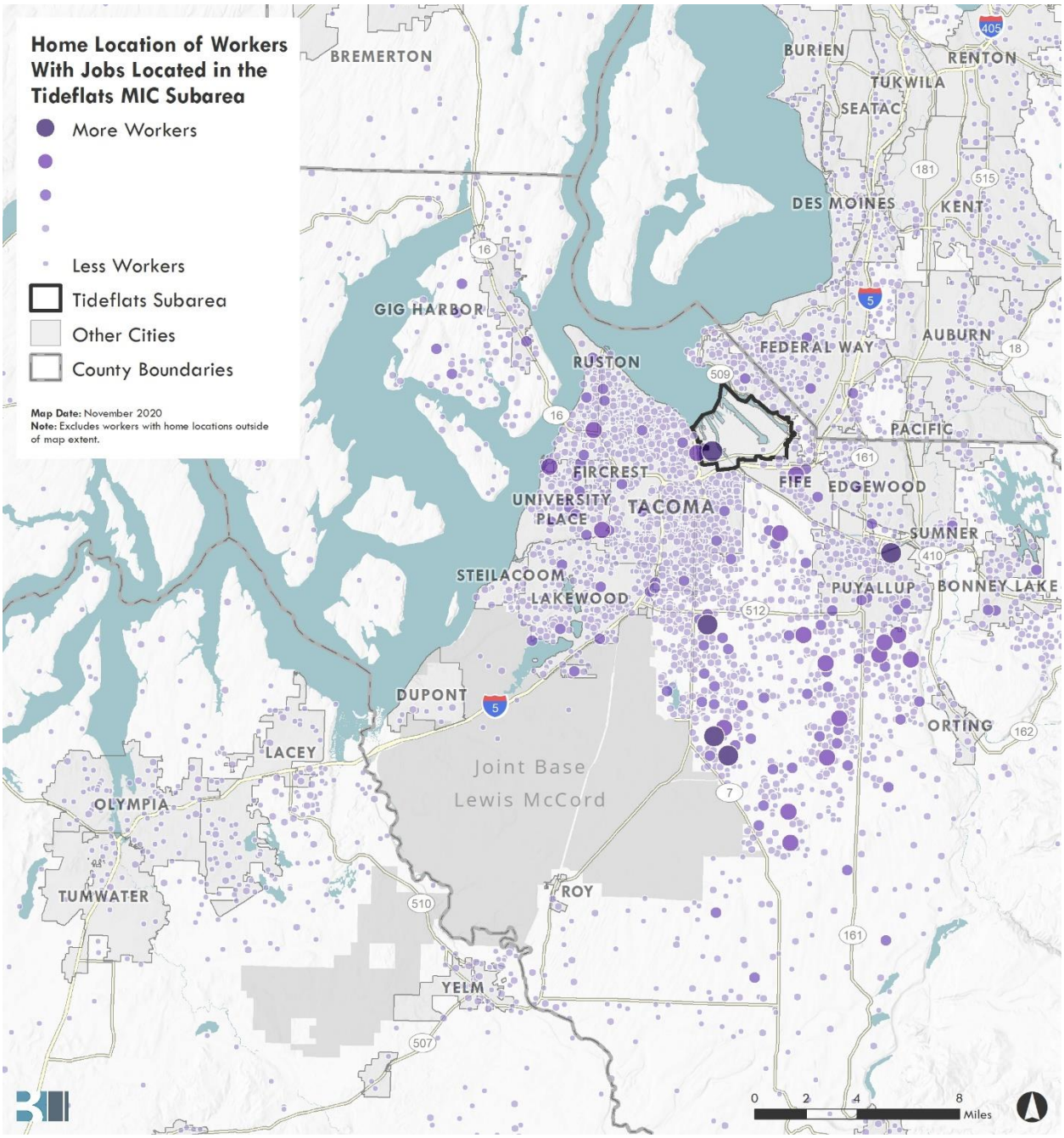
Exhibit 10-10 Inflow/Outflow Counts of all Jobs for Tacoma Tideflats, 2017

Note: Overlay arrows do not indicate directionality of worker flow between home and employment locations.
Source: US Census, OnTheMap, 2017.

- Employed in Selection Area, Live Outside
- Employed and Live in Selection Area
- Live in Selection Area, Employed Outside

This data illustrates that the MIC is a regional employment destination within the South Sound. Workers in the Port of Tacoma MIC primarily live in either the City of Tacoma or surrounding communities in the South Sound such as South Hill, Lakewood, Parkland, and Spanaway. Exhibit 10-11 outlines the home locations of workers with jobs located in the Port of Tacoma MIC.

Exhibit 10-11 Home Location of Workers With Jobs Located in the Port of Tacoma MIC Subarea

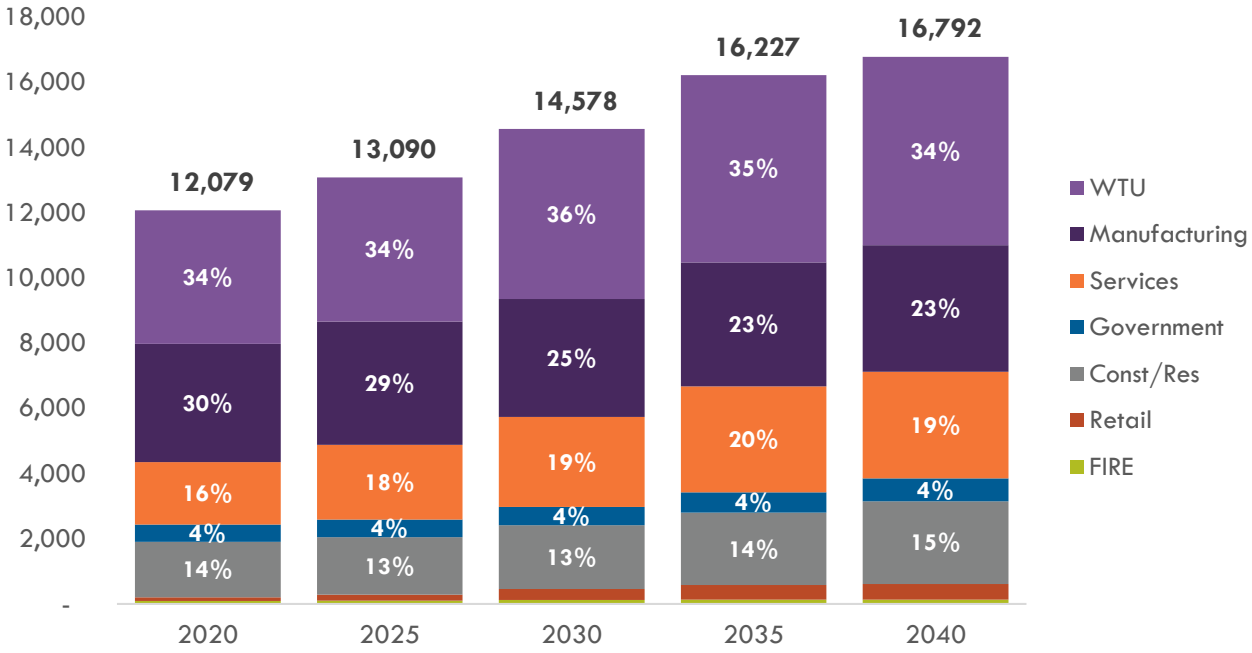


Sources: U.S. Census Bureau, OnTheMap, 2017; BERK, 2020.

Industry Trends Summary

Based on employment projections by PSRC through 2040, employment in the Port of Tacoma MIC is expected to grow to 16,792 jobs, an increase of around 6,600 jobs from 2019 estimated employment. The primary projected driver of this increase in employment is the Warehousing, Transportation, Utility (WTU) sector which is projected to increase by nearly 1,700 jobs from 2020 to 2040. The Services sector is also expected to see significant growth, with a projected increase of around 1,300 jobs from 2020 to 2040. See Exhibit 10-12 below.

Exhibit 10-12 Tacoma MIC Employment Forecast by Sector, 2020-2040



Year	Const/Res	FIRE	Manufacturing	Retail	Services	WTU	Government	Total
2020	1,702	84	3,624	120	1,918	4,102	529	**12,079**
2025	1,766	103	3,786	177	2,295	4,424	539	**13,090**
2030	1,960	121	3,618	335	2,757	5,226	561	**14,578**
2035	2,223	131	3,802	450	3,251	5,751	619	**16,227**
2040	2,539	130	3,882	480	3,267	5,788	706	**16,792**

Sources: PSRC, 2020; BERK, 2020.

While established local and regional industry strengths are reflected in the study area, the changing role of ports, trends in sectors such as logistics, warehousing, transportation, and utilities and manufacturing, changes to shipping technology, and growing interest in environmental sustainability will influence and shape the development and composition of the area in the years to come. These trends include (World Bank Transport Division, 2007):

- **Ports are anticipated to play an increasingly important role in the regional economy.** Globalization of supply chains have meant that access to ports influences whether a local or regional producer can compete with other producers. Low-cost, efficient port services can enhance the competitive advantages of local and regional firms. Given this impact, and the anticipated growth in the regional economy, there is likely to be continued demand for efficient port services.
- **Growing strength of logistics**. A key industrial strength of the study area is the Warehousing, Transportation, Utility (WTU) sector which includes logistics. Logistics is a fast-growing sector that is anticipated to see increased demand. As businesses expand the geographic reach of their sourcing and distribution operations, logistics and transportation have become increasingly important. Specialist logistics providers have emerged who take on tasks such as preassembly, sequencing of parts, and customization of products. These emerging users are key for port areas and areas with easy access to ports. For example, the Sumner Pacific MIC has a number of logistics firms that are located there because of access to the Port of Tacoma, as do other MICs including those both north and south of Pierce County..
- **Consolidation of manufacturing**: Manufacturers have been increasingly concentrating production activity in fewer locations. This has increased demand for logistical systems and makes existing manufacturing activity highly dependent on transportation. Investments in transportation improvements are therefore a key economic development strategy.
- **Technology impacts.** Technological advances are changing industrial sectors, affecting the nature and extent of port infrastructure and services. For example, containerization has reduced personnel requirements for cargo handling, increased the productivity of existing berths, and increased the capital needs of port operations. A range of advances in automation has increased productivity in recent decades. Similar to containerization, technology advances in automation may reduce employment densities, but the resultant productivity increases are likely to grow these sectors.
- **Changing workforce needs** Technology has also changed the skills required for industrial operations, creating workforce development and retraining needs across sectors. Workforce needs are also shifting toward higher-skilled, technologically proficient workers. The relative concentration of these workers in the central Puget Sound region may be likely to give this region a competitive advantage over other industrial areas. Economic development strategies will, however, need to directly address these workforce development needs.
- **Environmental concerns:** Industrial areas and maritime ports face growing concerns about environmental protection around a wide range of topics such as water pollution, air pollution, aesthetics, noise, transfer of foreign marine species, and more. Climate vulnerability is also an issue. These concerns have increased demand for more environmentally sustainable use of land in industrial areas. Many industrial users and ports are making significant investments in facilities, and changes in operations, to address these concerns.

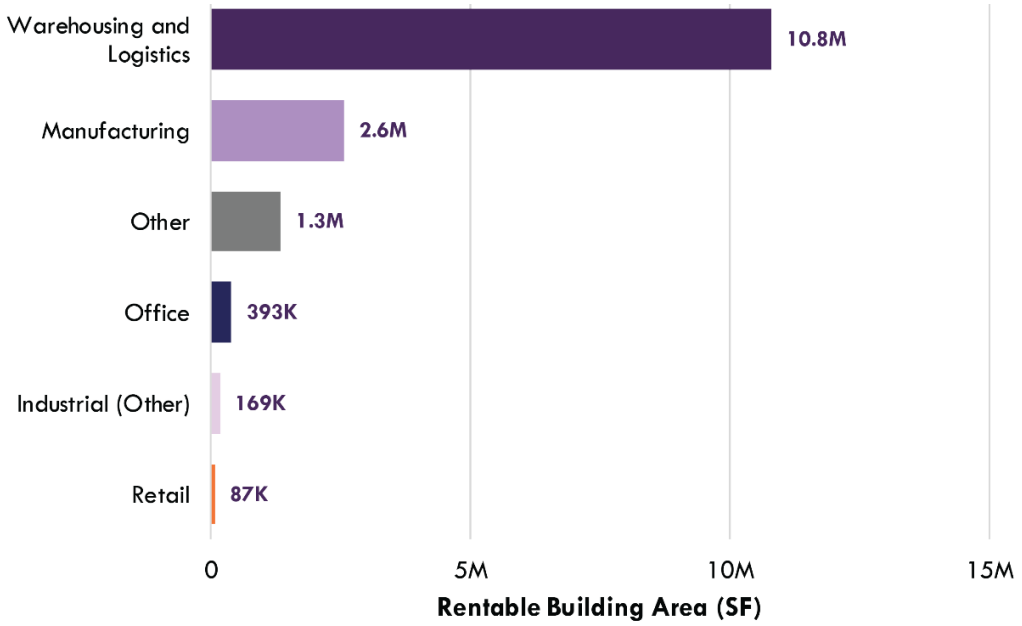
Building Area

Exhibit 10-13 provides a breakdown of rentable building area information. As suggested by the employment data, the dominant type of real estate located within the Port of Tacoma MIC is industrial/flex properties, with the largest amount of rentable building area in warehousing and logistics (with over 10.8 million square feet of space), and manufacturing (2.6 million square feet). The 1.3 million square feet of other uses include:

- Oil and chemical refining
- Resource uses, including cement and gravel plants
- Marinas and shipyards
- Lumberyards
- Railroad yards
- The federal Northwest Detention Center

There are minor amounts of other uses in this area, including retail and office uses. No multifamily residential development is located within this area, although some non-residential uses do include accessory caretaker units.

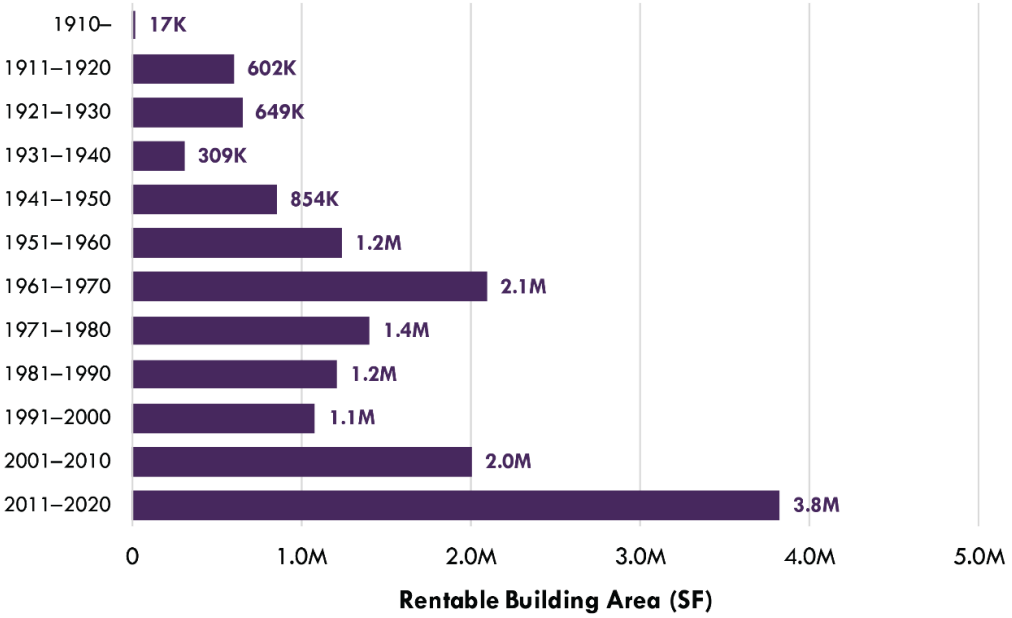
Exhibit 10-13 Breakdown of Rentable Building Area in the Port of Tacoma MIC, 2020.



Sources: CoStar, 2020; BERK, 2020.

The MIC includes both old and new buildings. Exhibit 10-14 categorizes the rentable building area in the study area. About 10%, or approximately 1.6 million SF, of identified floor area was built pre-war, and 57% or roughly 5.8 million SF of total rentable building area is 50 years old or older.

Exhibit 10-14 Rentable Building Area by Building Age, Port of Tacoma MIC, 2006–2020.



Sources: CoStar, 2020; BERK, 2020.

A significant amount of development in the study area is newer, with about 3.8 million SF of building area constructed since 2011. Exhibit 10-15 shows the characteristics of these projects, including the building locations and owners. Note that all these uses are in warehousing and distribution. Despite the large amount of development, only three property owners have had new construction on their sites: Prologis (5 buildings, 2.3 million SF), Back Creek Group (2 buildings, 1.1 million SF), and the Port of Tacoma (three buildings, 428,000 SF).

Exhibit 10-16 provides the amount of rentable building area in the study area categorized by the top 10 owners in this area. Most notably, Prologis holds the largest amount of floor area, and this almost completely consists of new construction. Similarly, Black Creek Group is the third-largest holder of floor area, with most of this space built in 2018.

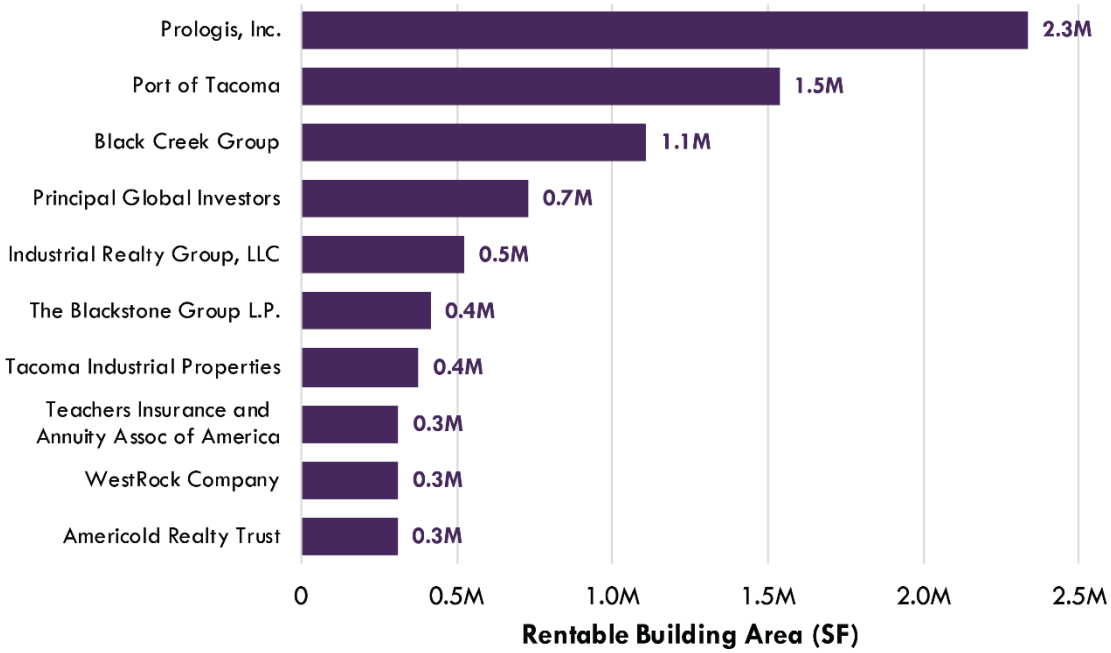
Overall, the construction of new warehousing and distribution facilities by large logistics real estate investment companies such as Prologis and the Black Creek Group indicates the market perception of the study area as an attractive location for such facilities. It will likely continue to see a trend of national and international real estate firms investing capital for larger logistics facilities in this area.

Exhibit 10-15 New Rentable Building Area, Tacoma MIC, 2011–2021

Property	Building	Address	RBA	Year	Owner
CenterPoint Properties		1651 Lincoln Ave	106,764	2021*	LBA Realty
Portside 55	Building A	1514 Taylor Way	155,100	2019	Port of Tacoma
	Building B	1614 Taylor Way	51,900	2019	Port of Tacoma
	Building C	3401 Lincoln Ave	221,010	2019	Port of Tacoma
Prologis Blair Distribution Center	Building A	2340 Taylor Way	542,750	2018	Prologis, Inc.
	Building B	2600 Taylor Way	428,228	2019	Prologis, Inc.
Prologis Park Tacoma	Building A	5015 8th St E	222,925	2017	Prologis, Inc.
	Building B	5101 E 12th St E	770,195	2017	Prologis, Inc.
	Building D	4801 E 8th St E	319,806	2018	Prologis, Inc.
Tacoma Logistics Center	Building A	927 E 11th St	280,525	2018	Black Creek Group
	Building B	917 E 11th St	828,620	2018	Black Creek Group

*Proposed.
Sources: CoStar, 2020; BERK, 2020.

Exhibit 10-16 Top Owners of Rentable Building Area in Tacoma MIC, 2020



Sources: CoStar, 2020; BERK, 2020.

There is a very small amount of retail space in the study area. Primarily, this development supports the industrial and logistics uses in this area. A larger district of highway-oriented commercial uses is located directly to the south of the study area in the city of Fife, which provides a greater local and regional draw for retail demand with more direct access from I-5.

The office market in this area is also relatively small, with a total of about 393,000 SF. The largest building in this area is the Port of Tacoma's Fabulich Center, a 72,000 SF multi-tenant office building. Other significant buildings in the area include the Center for Urban Waters building (48,341 SF), the Former Salvation Army building currently owned by Summit Public Schools (45,000 SF), and the Port of Tacoma administration building (42,100 SF). Other office buildings are smaller, mostly providing support functions for industrial and warehousing activities in the study area.

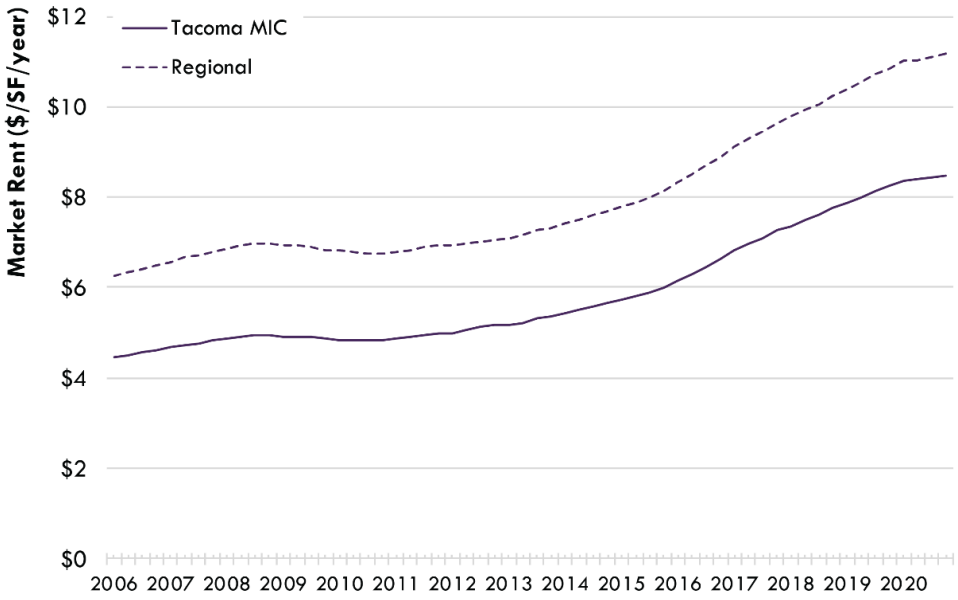
Current office vacancies are around zero with projected rents of approximately $25/SF/year. There has been some notable growth in office rents in the area, with year-over-year rent growth reaching 9% in all four quarters of 2017. The smaller amount of space in the area, as well as greater draw of office uses to downtown Tacoma directly to the west, means that this area is not as much competition for higher-end office uses, but could be a location for Class B/C office space.

Data about local and regional real estate markets for warehousing, logistics, and manufacturing between 2006 and 2020 are provided in the following figures:

- **Rents per square foot** for the Port of Tacoma MIC and King and Pierce Counties are included for warehousing and logistics (Exhibit 10-17) and manufacturing (Exhibit 10-18).
- **Rent changes year-over-year** (YOY) for the MIC and region are provided in Exhibit 10-19 (warehousing and logistics) and Exhibit 10-20 (manufacturing).
- **Vacancy rates** for warehousing and logistics and manufacturing are provided in Exhibit 10-21 and Exhibit 10-22, respectively.
- **Net deliveries** of new rentable building area for warehousing and logistics and manufacturing are given in Exhibit 10-23.
- **Net absorption** of rentable building area for warehousing and logistics and manufacturing are provided in Exhibit 10-24.

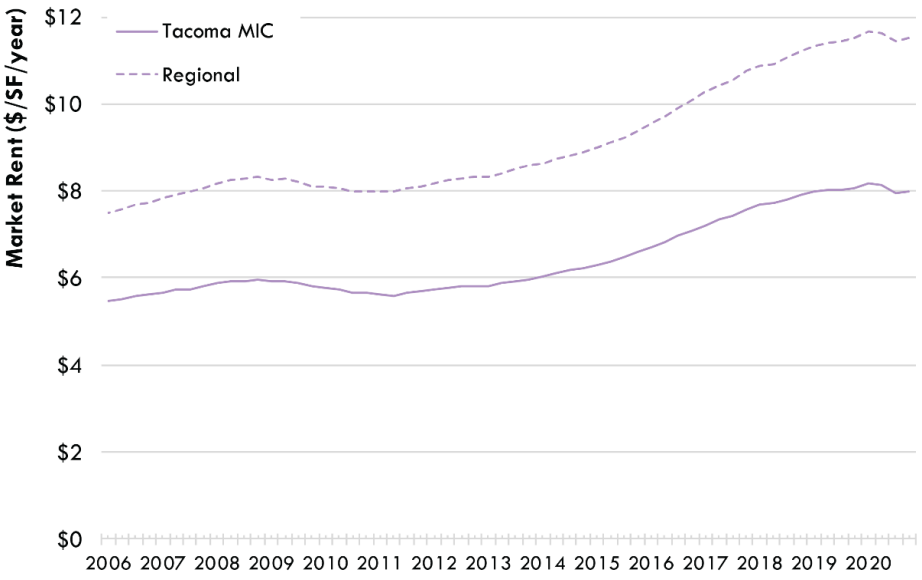
Properties in the Port of Tacoma MIC have industrial rents that are largely below regional averages for King and Pierce Counties. For warehousing, local rents are estimated to be around 75% of the regional average, with 70% of regional rents for local manufacturing uses. In part, this reflects the high pricing of manufacturing and warehousing space elsewhere in the region, such as in the Duwamish area close to the Port of Seattle.

Exhibit 10-17 Warehousing and Logistics Rent per SF, Port of Tacoma MIC and Region, 2006–2020



Sources: CoStar, 2020; BERK, 2020.

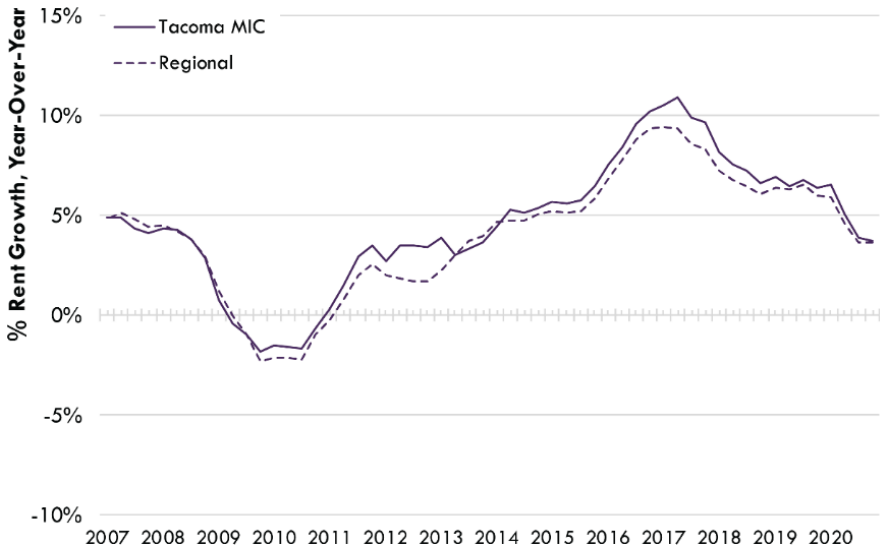
Exhibit 10-18 Manufacturing Rent per SF, Port of Tacoma MIC and Region, 2006–2020



Sources: CoStar, 2020; BERK, 2020.

After a brief downturn in rents in 2009–2011, rents for warehousing and logistics uses have increased, with up to 10–11% from 2016 Q3 to 2017 Q4. Note that this was also a period of very low vacancies in this area, with less than 1% vacancy during this period. These increases in rents have stabilized but are still positive even in 2020 Q3. See Exhibit 10-19.

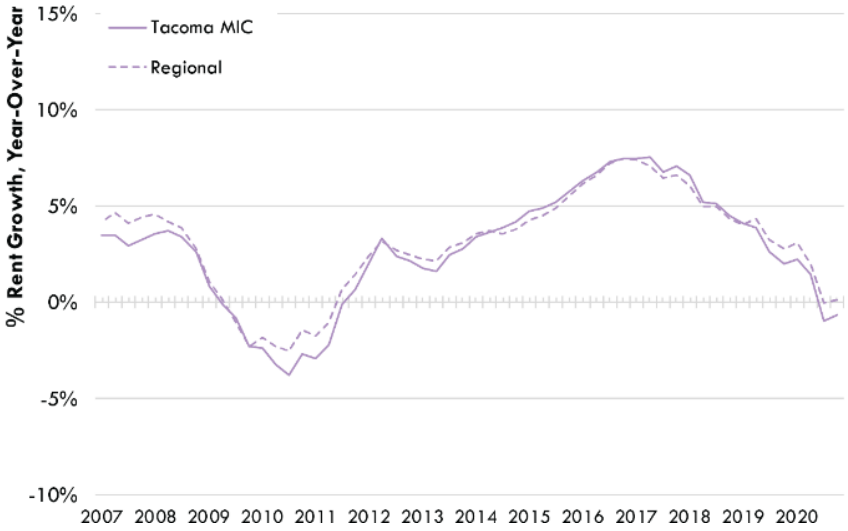
Exhibit 10-19 Warehousing and Logistics Rent Growth, Port of Tacoma MIC and Region, 2006–2020



Sources: CoStar, 2020; BERK, 2020.

Rent increases for manufacturing spaces have been lower in this area, with only 7–8% rent increases during the same peak in 2016–2017. Manufacturing rents have also experienced slight declines in 2020, with a 0.6–0.9% year-over-year decline in Q2 and Q3. Vacancies in manufacturing spaces have been consistent with regional averages, largely below 5% except for brief peaks due to major tenants moving. See Exhibit 10-20.

Exhibit 10-20 Manufacturing Rent Growth, Port of Tacoma MIC and Region, 2006–2020.

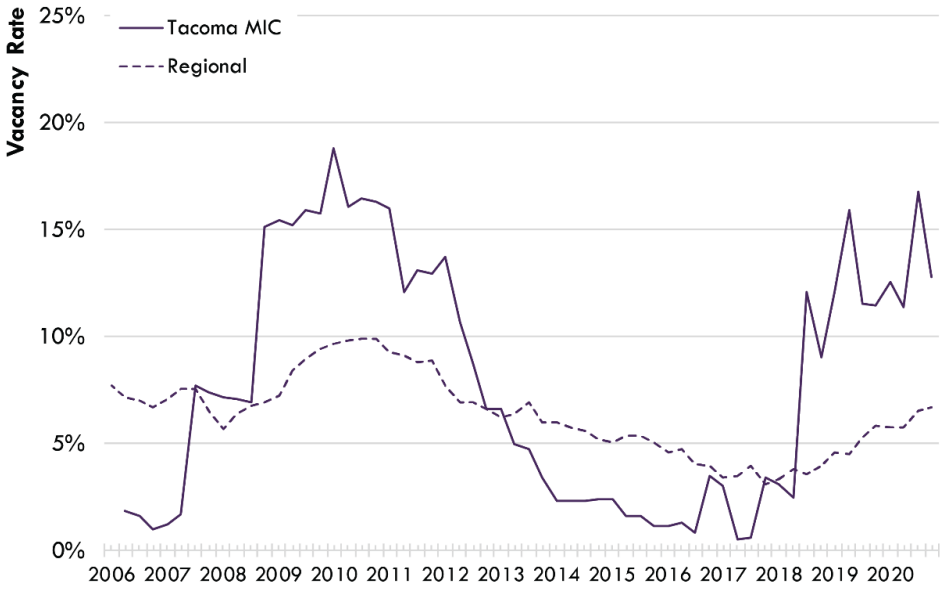


Sources: CoStar, 2020; BERK, 2020

There have been distinct peaks in warehousing and logistics vacancy rates which have lagged the construction and delivery of new warehousing and logistics floor space. Delivery of floor space

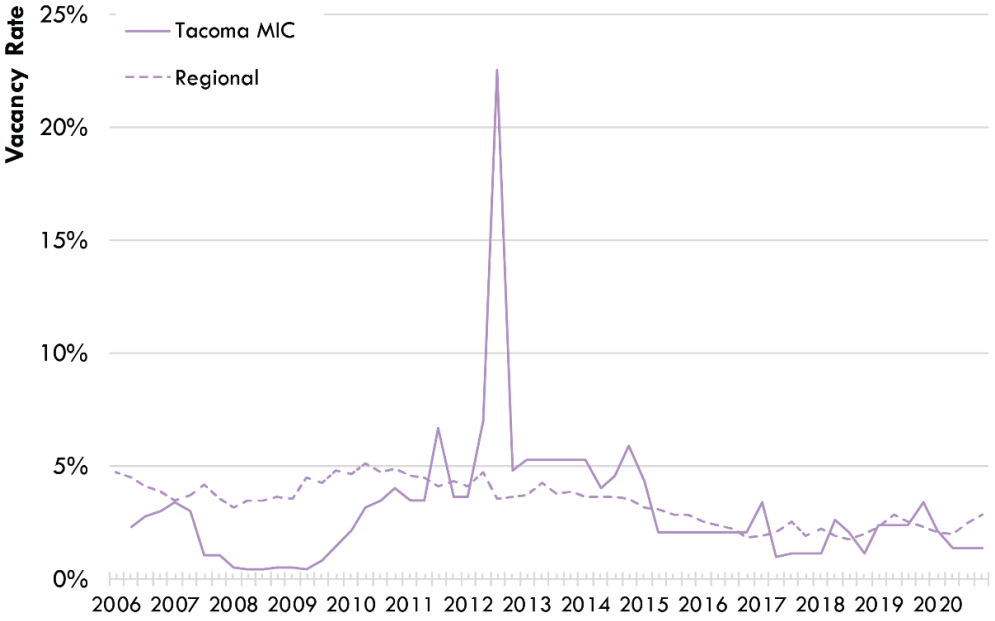
refers to when a building completes construction and receives a certificate of occupancy. During the last recession, this resulted in extended vacancies for new warehousing and logistics space in 2007–2008, which was not leased up until 2013. As of 2020, warehousing and logistics vacancy rates are largely around 12–13%. This elevated rate of vacancies for warehousing and logistics space is likely related to the significant amount of new floor space delivered in from 2017 to 2019. See Exhibit 10-21 and Exhibit 10-22.

Exhibit 10-21 Warehousing and Logistics Vacancy Rates, Port of Tacoma MIC and Region, 2006–2020



Sources: CoStar, 2020; BERK, 2020.

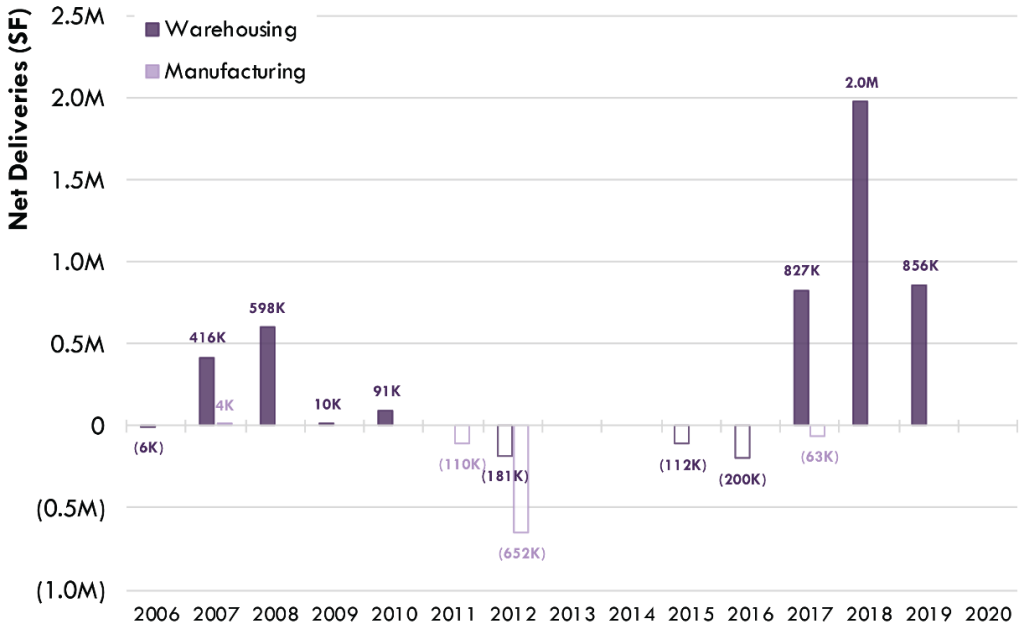
Exhibit 10-22 Manufacturing Vacancy Rates, Port of Tacoma MIC and Region, 2006–2020



Sources: CoStar, 2020; BERK, 2020.

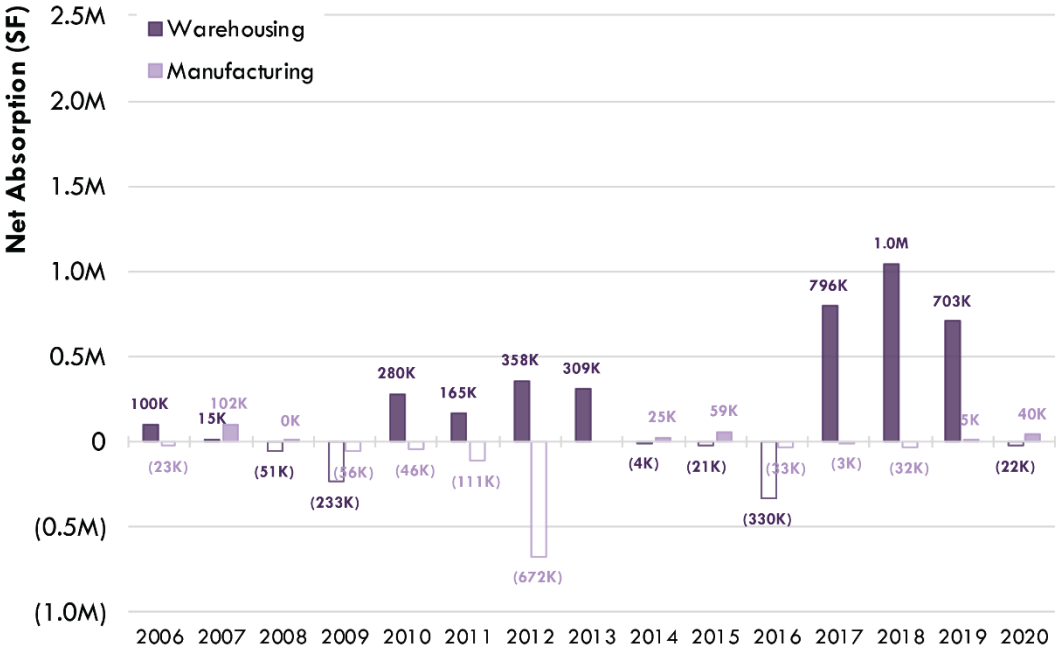
There have been no net positive deliveries of space for manufacturing since 2007, and the area has lost about 824,000 SF of space in manufacturing uses since 2007. Manufacturing space in the Port of Tacoma MIC is typically more than a decade old, less expensive, and more depreciated. See Exhibit 10-23 and Exhibit 10-24.

Exhibit 10-23 Deliveries of Rentable Building Area in Tacoma MIC, 2006–2020



Sources: CoStar, 2020; BERK, 2020.

Exhibit 10-24 Absorption of Rentable Building Area in Tacoma MIC, 2006–2020



Sources: CoStar, 2020; BERK, 2020.

Economic Impact Assessment

As a manufacturing and industrial center, the Port of Tacoma MIC is a significant driver of the local and regional economy. The industrial activity in the MIC is inextricably linked to other key sectors in the greater Pierce County and Washington State economy, such as retail, services and agriculture. For example, food products are stored, packaged and distributed from the study area to restaurants, grocery stores, and other businesses through the city and Pierce County region. Examples of similar linkages to the local and regional economy include shipbuilding firms supplying the region's maritime economy and others.

One way to assess and quantify the impact of these linkages is to quantify the purchasing patterns of key sectors as they relate to goods and services demanded by other sectors. This form of analysis is referred to as input-output analysis.

To measure the economic impact of the private businesses in the Port of Tacoma MIC on Pierce County, a 2019 study from the Center of Business Analytics at the Milgard School of Business at the University of Washington-Tacoma utilized an input-output model. The results from this study are shown in Exhibit 10-25. It should be noted that this study was not a professional prepared study and findings should be used for reference purposes only.

Exhibit 10-25 Estimated Total Impacts from Private Businesses in the Port of Tacoma MIC

Economic Impact	Employment	Economic Output
Direct Economic Impact	5,165	$1.99 Billion

Economic Impact	Employment	Economic Output
Indirect/Induced Economic Impact	10,640	$3.31 Billion
Total Economic Impact	**15,805**	**$5.30 Billion**

Sources: Center for Business Analytics at Milgard School of Business University of Washington, Tacoma, 2019; BERK, 2020.

The UW-Tacoma study found that all private businesses in the Port of Tacoma MIC directly employed a total of 5,165 people and those businesses directly generated nearly $2 billion in annual economic output. Those businesses and employees were estimated to then support an additional 10,640 jobs indirectly in Pierce County which are estimated to generate over $3 billion in annual economic output. The total impact of the private businesses in the Port of Tacoma MIC on Pierce County is estimated to support 15,805 jobs directly and indirectly and generate over $5 billion in annual economic output.

As mentioned previously, another significant driver of economic activity within the Port of Tacoma MIC is the Port of Tacoma. The economic impact of the Port of Tacoma is driven by two lines of business: marine cargo operations and Port of Tacoma tenants. Economic impacts for the Port of Tacoma were estimated by a 2019 study produced by Community Attributes Inc. for the NWSA (NWSA, 2019). The results from this study are outlined in the table below

Exhibit 10-26 Estimated Total Impacts from Port of Tacoma in the Port of Tacoma MIC

Economic Impact	Employment	Economic Output
Direct Economic Impact		
Marine Cargo Operations	12,950	$3.70 Billion
Port of Tacoma Tenants and Other Businesses	1,500	$0.85 Billion
Indirect Economic Impact		
Marine Cargo Operations	36,900	$7.78 Billion
Port of Tacoma Tenants and Other Businesses	5,200	$1.55 Billion
Total Economic Impact	**56,550**	**$13.88 Billion**

Sources: CAI, 2019; BERK, 2020.

The 2019 study found that the marine cargo operations for Port of Tacoma directly employed a total of 12,950 people and those jobs directly generated $3.70 billion in annual economic output. Port of Tacoma tenants and other businesses were found to directly employ 1,500 people and those jobs directly generated $0.85 billion in annual economic output.

The economic output from the direct jobs supporting marine cargo operations at NWSA indirectly supported an additional 36,900 jobs across the Washington State economy while jobs from Port of Tacoma tenants and other businesses indirectly supported an additional 5,200 jobs across the

Washington State economy. In total, the Port of Tacoma's economic impact across the state was estimated to support 56,550 jobs and $13.88 billion in annual economic output.

10.3 Key Findings and Implications for Plan

Current Economic Activity

- **The study area is a local, regional, and national asset.** The MIC is an active industrial area with significant existing jobs in core industrial sectors. The area has a long history of industrial employment and is a key component of a regional system of manufacturing and industrial centers that stretches from the Cascade Industrial Center in the North to the Frederickson MIC in the south.
- Industrial activities rely on a diverse and concentrated support cluster present in the study area, including business engaged in fueling operations, marine electronics, refrigeration and gear manufacturers, naval architects and other professional services. The study area also includes a range of industrial services and repair, metal fabricators and machine shops, and commercial, residential and civil construction contractors and builders.
- **As of 2019, total employment within the Port of Tacoma MIC was 10,161, an increase of 735 jobs over the past ten years.** Currently about 68% of employment in the MIC is within the Wholesale Trade, Transportation, and Utilities (WTU) sector (42%) as well as the Manufacturing sector (26%). Much of the growth over the past ten years has been driven by the WTU sector while the Manufacturing sector has shrunk from 2010 levels.
- **Industrial activities provide a range of job opportunities.** Manufacturing, transportation, utility, maritime, industrial services and repair, metal fabricators, machinist, and contractor jobs are available to workers with relatively less formal education. Relative to lower wage service sector jobs these jobs provide a source of stable employment with opportunities for advancement.

Future Trends

- **A key industrial strength of the study area is logistics. Logistics is a fast-growing sector that is anticipated to see increased demand**. As businesses expand the geographic reach of their sourcing and distribution operations, logistics and transportation have become increasingly important. Specialist logistics providers have emerged who take on tasks such as preassembly, sequencing of parts, and customization of products. These emerging users are key users for port areas and areas with easy access to ports.
- **Recent market activity in new construction by national real estate investment companies in warehousing and logistics properties in the area show market demand for the area**. Given the strength of the logistics sector, strategic focus of the Port of Tacoma on cargo, as well as higher rents found in the Duwamish area, the study area may see demand for development of this type.

- **The study area includes support businesses for industrial activity which range from high-impact to low-impact uses.** While commercial land in other locations may be able to absorb some cleaner, lower-impact businesses of this type, some businesses such as metal fabrication are high-impact and are unlikely to be able to find locations that are an easy substitute for the study area. In addition to the need for buffering given their impacts, land values and rents in these locations are also unlikely to be affordable to these businesses. Potential displacement of these businesses in the face of growing demand for sites for port-related uses will need to be addressed.
- **The use of space for manufacturing in the study area is declining, with new warehousing and logistics development pressure.** Manufacturing uses that are not strongly marine- or logistics-oriented, may be forced out over time. Lower impact uses will likely be absorbed in commercial areas.
- **Based on employment projections by PSRC through 2040, employment in the Port of Tacoma MIC is expected to grow to 16,792 jobs, an increase of around 6,600 jobs from 2019 estimated employment.** The primary projected driver of this increase in employment is the WTU sector which is projected to increase by nearly 1,700 jobs from 2020 to 2040. The Services sector is also expected to see significant growth, with a projected increase of around 1,300 jobs from 2020 to 2040.
- **While established local and regional industry strengths are reflected in the study area, the changing role of ports, trends in sectors such as logistics, warehousing, transportation, and utilities and manufacturing, changes to shipping technology, and growing interest in environmental sustainability will influence the development and composition of the area in the years to come.**