This meeting is a public meeting which you may attend in person. This meeting can also be watched electronically via the City's YouTube and Facebook Pages. Public comments must be submitted by 5 p.m. on the day of the meeting and can be emailed to publiccomment@cityofseaside.us. Comments received electronically after that time will move to the next meeting's packet. Public comment can also be made in-person during the public comment period of the City Council meeting or during the public hearing for a specific agenda item.

AGENDA SEASIDE CITY COUNCIL MEETING
JULY 26, 2021 7:00 PM

1. CALL TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

4. APPROVAL OF AGENDA

5. COMMENTS – PUBLIC – (please keep speaking time to four minutes)

6. DECLARATION OF POTENTIAL CONFLICT OF INTEREST

7. CONSENT AGENDA

   a) PAYMENT OF THE BILLS - $470,753.21

   b) APPROVAL OF MINUTES – July 12, 2021

8. REPORTS AND PRESENTATIONS:

   a) UPDATE - CITY COUNCIL GOAL (G2) – CONTINUE FOCUS ON DEVELOPMENT OF HOUSING OPPORTUNITIES IN SEASIDE, TASK FORCE FORMED July 31, 2021, Council President Wright

9. UNFINISHED BUSINESS:

   a) VACANCY - COMMUNITY CENTER COMMISSION
   PLANNING COMMISSION
   CITY TREE BOARD

10. NEW BUSINESS

   a) ORDINANCE #2021-03 – AN ORDINANCE OF THE CITY OF SEASIDE, OREGON, AMENDING CODE OF ORDINANCE CHAPTER 31: BOARDS, COMMISSIONS, AND COMMITTEES, REGARDING 31.050 COMMUNITY CENTER COMMISION MEMBERSHIP (Second Reading)

      - OPEN PUBLIC COMMENTS
      - COUNCIL COMMENTS
      - MOTION FOR SECOND READING BY TITLE ONLY – ALL IN FAVOR AND OPPOSED

   b) RESOLUTION #3992 – A RESOLUTION OF THE CITY OF SEASIDE, OREGON, ADOPTING THE CLATSOP COUNTY MULTI-JURISDICTIONAL NATURAL HAZARDS MITIGATION PLAN

      - PUBLIC COMMENTS
      - COUNCIL COMMENTS
      - MOTION TO READ BY TITLE ONLY – ALL IN FAVOR AND OPPOSED
      - MOTION TO ADOPT – ALL IN FAVOR AND OPPOSED

c) APPROVAL – SEASIDE PUBLIC WORKS HYDRO EXCAVATION VACTOR TRUCK REPLACEMENT, Dale McDowell

d) FINAL REPORT – TECHNICAL MEMORANDUM FOR THE AWIA RISK AND RISILIENCE ASSESSMENT, Dale McDowell

11. COMMENTS FROM THE CITY STAFF

12. COMMENTS FROM THE COUNCIL

13. ADJOURNMENT

Complete copies of the Current Council meeting Agenda Packets can be viewed at: *Seaside Public Library and Seaside City Hall. The Agendas and Minutes can be viewed on our website at www.cityofseaside.us.*

All meetings other than executive sessions are open to the public. When appropriate, any public member desiring to address the Council may be recognized by the presiding officer. Remarks are limited to the question under discussion except during public comment. This meeting is handicapped accessible. Please let us know at 503-738-5511 if you will need any special accommodation to participate in this meeting.

CITY OF SEASIDE: Seaside City Council Goal Setting 2021

OUR VISION 2034:
Seaside is a remarkable, culturally rich community. Our families thrive, our businesses prosper and generations of visitors create memories that last lifetimes — all in a healthy, safe and neighborly coastal environment.

OUR STRATEGIC DECISIONS MUST:
- Preserve or enhance the desirable characteristics of our community.
- Be inclusive of all community members.
- Be in the best interest of Seaside.
- Be supported by resources, including all additional needs caused by each decision.
- Have benefits that outweigh negative or unintended consequences.

KEY:
- Measures of Success
- Two-year Goals
- Four-year Goals

	Two-Year Goals	Four-Year Goals
Our Economic Base	G1 Convene Business-Led Task Force to advise on Business Recovery in Seaside — *Jay & David* Task force formed by April 30, 2021 G2 Continue Focus on Development of Housing Opportunities in Seaside — *Steve* Task force formed by July 31, 2021	G1 Evaluate UGB Expansion for the Purpose of Housing — *Steve* G2 Develop a Destination Stewardship Plan — *Tita & David*
Our Infrastructure	G3 Determine Highest and Best Use of Two City Properties — *Randy & Steve* Uses Determined by December 31, 2021 G4 Identify and Pursue Optimal Funding Mechanism for Prioritized Bridge Replacement — *Tom & Randy* Funding Options Identified by July 31, 2021	G3 Identify Long-Term Downtown Parking Solution — *David & Randy*
Our Operational Excellence	G5 Develop a Volunteer Recognition Program — *Steve & David* Program Operational by June 30, 2021 G6 Succession Planning for City Manager Role — *Jay & Dana* Plan Completed by July 31, 2021 G7 Review, Revise, and Update City Charter as Needed — *Tita & Jay* Completion of Updates by June 30, 2022 G8 Review, Revise, and Update a Prioritized List of City Ordinances — *Tita & Dana* Prioritized List Developed by August 31, 2021 G9 Develop Policies for Guidance of Committees and Commissions — *Dana, Tita & Tom* Policies Developed by June 30, 2021	
Our Resiliency	G10 Update Our Plan for Disaster Evacuation and Survival Infrastructure — *Randy & Tom* Disaster Preparedness Plan Updated and Communicated to Council and Residents by Fall/Winter 2022 G11 Develop a Resiliency Master Plan — *Randy* Resiliency Master Plan Draft Completed by Fall/Winter 2022	G4 Seek Funding and Begin Construction of Evacuation and Survival Infrastructure — *Randy & Tom* G5 Take initial Steps Towards Implementation of Resiliency Master Plan — *Randy*
Our Quality of Life	G12 Define and Implement City Strategies to Address Homelessness in Seaside — *Tita & Jay* Strategies Defined by August 31, 2021 G13 Identify City Opportunities to Address Addiction and Mental Health Issues in Seaside — *Dana & Jay* Opportunities Identified by Fall 2021 G14 Engage Partners to Begin Implementation of Source Water Protection Plan — *Tom & Randy* Protection Plan Completed by Winter 2021	G6 Implementation of Parks and Trail System Improvements — *Tom & David*

CITY of SEASIDE

OREGON'S
FAMOUS
ALL-YEAR
RESORT

989 BROADWAY
SEASIDE, OREGON 97138
(503) 738-5511

SEASIDE TASK FORCE – DEVELOPMENT OF HOUSING OPPORTUNITIES MEMBERS LIST

Term of Office: Temporary

Number of Members: 8

NAME	EMAIL ADDRESS	PHONE	REPRESENTING
ERIN BARKER	erinbarker2159@icloud.com	(503) 738-9068	PROPERTY RENTALS
RICK BOWERS	rick@FriendsOfTheUnsheltered.org	(916) 622-4501	FRIENDS UNSHELTERED
NELLE MOFFETT	nelle@speak-peace.com	(916) 307-9790	FRIENDS UNSHELTERED
SARA LU HEATH	sarahlu@nworegon.org	(503) 397-3099	COLPAC PROGRAM MANAGER
BILL MONTERO	montero@seanet.com	(206) 250-5919	BUSINESS INDUSTRY
BRIAN OWEN	CEO@seasidechamber.co	(503) 738-6391	CHAMBER OF COMMERCE
KEVIN CUPPLES	kcupples@cityofseaside.us	(503) 738-71000	STAFF LIAISON
STEVE WRIGHT	swright@cityofseaside.us	(503) 984-5324	CITY COUNCIL REPRESENTATIVE

COMMUNITY CENTER COMMISSION

(Meetings are scheduled the first Tuesday of every month at 10:00 AM)

The purpose of the Community Center Commission is to be an advisory body to recommend and make suggestions to the City Council concerning matters relating to the well being of the community center and its users. Receive direction from the Council concerning matters relating to the well being of the community center and its users.

The commission consists of nine members who are not officials or employees of the city and who shall be appointed by the City Council. A minimum of five members shall reside within the city limits; a maximum of four members may reside within the Urban Growth Boundary, but outside the City limits.
A Community Center Commissioner's term of office shall commence on June 1, of each year of his/her term. At the first Commission meeting in June, the Commission will appoint one of their members as Chairperson and one as Vice-Chairperson. One member of the Commission will serve as secretary and minutes will be filed with the City Council.

The Commission shall hold a regular meeting at least once each month of the calendar year. The meetings shall be open to the public. Any person appointed to serve on this committee who misses three or more regularly scheduled meetings during a 12-month period shall be notified by letter from the Mayor that the position must be vacated. The individual may appeal the decision to the City Council. (A 12 month period is defined as beginning in January of each calendar year.)
The members shall serve without salary or compensation of any nature. "The members shall serve without salary or compensation of any nature."

COMMITTEE/COMMISSION APPOINTMENT

1. **Date Council Notified:** **June 15, 2021**

Name: Kristin Kabanuk
Jordan Virding

Commission/Committee: **Community Center Commission**

Resignation Date: **Various**

Term Expiration Date: Kristin Kabanuk – June 1, 2023
Jordan Virding – June 1, 2022

Wants to be considered again: **NO**

2. **Applicants:**

3. **Nominations:**

4. **Appointment:**

CITY of SEASIDE

OREGON'S
FAMOUS
ALL-YEAR
RESORT

989 BROADWAY
SEASIDE, OREGON 97138
(503) 738-5511

COMMUNITY CENTER COMMISSION

Term: 3 years

Number of Members: 9

NAME	ADDRESS	PHONE	TERM EXPIRES
(VACANCY) VIRDING			**6/01/2022**
PIPER O'BRIEN***	720 S. LINCOLN	738-3169	6/01/2022
MOLLY IRONS**	221 7TH AVENUE	738-7005	6/01/2022
MALINDA AUSTIN	2062 CEDAR STREET	738-3926	6/01/2023
LOUIS NEUBECKER	1859 BROADWAY	717-0153	6/01/2023
(VACANCY) KABANUK			**6/01/2023**
JULIA WEINBERG*	431 AVENUE 'I'	503-717-5284	6/01/2024
TRACY MACDONALD	451 HILLSIDE LOOP	503-739-2162	6/01/2024
GRETCHEN DARNELL	2129 FOREST DRIVE	503-739-1781	6/01/2024
DANA PHILLIPS	1845 BROADWAY	738-9413	CITY COUNCIL

*CHAIR
**VICE CHAIR
***SECRETARY

SEASIDE PLANNING COMMISSION

(Meetings are scheduled the first and third Tuesday of every month at 6:00 PM)

The purpose of the Seaside Planning Commission is to recommend and make suggestions to the Council and to other public authorities concerning the laying out, widening, extending and locating of public thoroughfares, the parking of vehicles, the relief of traffic congestion, betterment of housing and sanitation conditions, and the establishment of districts for limiting the use, height, area, bulk and other characteristics of buildings and structures related to land development. The Planning Commission is to recommend to the Council and other public authorities plans for regulating the future growth, development and beautification of the city with respect to its public and private buildings and works, streets, parks, ground and vacant lots, and plans consistent with future growth and development of the city in order to secure to the city and its inhabitants sanitation, proper service of public utilities, including appropriate public incentives for overall energy conservation, and plans for shipping and transportation facilities.

The commission consists of seven members who are not officials or employees of the city and who will be appointed by the Mayor, subject to the approval of the City Council. A minimum of five members shall reside within the city limits; a maximum of two members may reside within the urban growth boundary, but outside the city limits. All members shall serve for a term of four years. A Planning Commissioner's term of office shall commence on the first day of November of the first year of his or her term.

Each year, at the first Committee meeting in November, the members shall appoint one of their members as Chairperson and one as Vice-Chairperson. One of the Committee members will serve as Secretary. Minutes of all meetings will be filed with the City Council.

No more than two members of the Commission may engage principally in the buying, selling or development of real estate for profit as individuals, or be members of any partnership, or officers or employees of any corporation, which engages principally in the buying, selling or developing of real estate for profit.

The Committee shall hold a regular meeting at least once each month of the calendar year. The meetings shall be open to the public. Any person appointed to serve on this committee who misses three or more regularly scheduled meetings during a 12-month period shall be notified by letter that the position must be vacated. The individual may appeal the decision to the City Council. (A 12-month period is defined as beginning in January of each calendar year.)

The members shall serve without salary or compensation of any nature.

COMMITTEE/COMMISSION APPOINTMENT

1. **Date Council Notified:** June 16, 2021

   Name: Chris Hoth

   Commission/Committee: Planning Commission

   Resignation Date: June 16, 2021

   Term Expiration Date: November 1, 2022

   Wants to be considered again: No

2. **Applicants:**
   Seth Morrisey

3. **Nominations:**

4. **Appointment:**

City of Seaside
Kim Jordan (City Recorder)
989 Broadway
Seaside, OR 97138

June 16, 2021

Dear Kim:

Please accept this letter as notification of my intent to resign my appointment to the Seaside City Planning Commission effective immediately. I appreciate the opportunity to have been able to participate in some aspect of the city's operations in this capacity. I also feel privileged to have been able to work closely with a hard-working and knowledgeable staff of the Planning Department who have been consistently helpful in guiding me through this process as well as current and former members of the Planning Commission. I have been on the commission for a while and it seems that now is the time to step down and allow someone else to carry on the work.

Thank you

Sincerely:

Christopher J. Hoth

Chris Hoth
420 Avenue I
Seaside, OR 97138
503-738-7861
cold09@charter.net

Please Note: It is Council policy that applicants must be a city or urban growth boundary resident, business owner or employee of a business for at least one year, depending on committee/commission residency requirements.

CITY OF SEASIDE

Interest Form for Committee/Commission/Board Vacancies

NAME Morrisey (Last) Seth (First) PHONE 503-440-2138

ADDRESS 2220 N Fork Rd. Seaside, OR 97138

MAIL ADDRESS (DIFFERENT THEN ABOVE) P.O. Box 333

BUSINESS ADDRESS (IF APPLICABLE) _____

EMAIL ADDRESS SethMorrisey@gmail.com

LENGTH OF TIME IN SEASIDE 39 ARE YOU A REGISTERED VOTER IN SEASIDE: Yes (●) No ( )

OCCUPATION Entrepreneur & Investor

PAST OCCUPATIONS _____

List committee/commissions on which you would like to serve: Seaside Planning Commission

List committee/commissions you are currently appointed to: None

List employment and volunteer activities, which may relate to service on committee/commissions: Seaside City Councilor

List skills and special knowledge that you may have acquired from these activities: Real Estate Development, Land Use Laws & Regulations

Have you ever been convicted, pled guilty or pled "no contest" to any crime, offense, or major traffic violation? Yes ( ) No (●) If yes, what offense? _____

When? _____ Please explain: _____

Please list 3 references including an employer or supervisor, and people that have known you for at least 2 years. **(No City Council Members, Please)**

NAME	RELATIONSHIP	ADDRESS	PHONE
Matt Rose	Business Associat	930 13th Ave	503-440-1162
Ken Ulbrict	Accountant	620 S Holladay Dr #4,	(503) 738-7282
Christian Zupancic	Lawyer	615 BROADWAY ST. S	503-747-9836

I authorize, any person or entity contacted by the City of Seaside to furnish information relating to my appointment to the Commission/Committee/Board indicated above and I release any such person or entity from any and all liability for furnishing such information. I also release the City of Seaside from any and all liability for conducting such an investigation.

DATE 7-19-2021 SIGNATURE _____

CITY of SEASIDE

OREGON'S
FAMOUS
ALL-YEAR
RESORT

989 BROADWAY
SEASIDE, OREGON 97138
(503) 738-5511

PLANNING COMMISSION

Term of Office: 4 years

Number of Members: 7

NAME	ADDRESS	PHONE	TERM EXPIRES
CHRISTOPHER ROSE	930 13TH AVENUE	503-440-0764	11/01/2021
VACANCY (HOTH)			11/01/2022
JON WICKERSHAM	780 6TH AVENUE	503-440-4816	11/01/2022
ROBIN MONTERO	2471 SUNSET BLVD.	206-852-1810	11/01/2023
LOUIS NEUBECKER	1859 BROADWAY	717-0153	11/01/2023
TERI CARPENTER	220 AVENUE 'U'	425-246-9962	11/01/2024
KATHY KLECZEK	2080 ALDERCREST	503-440-3232	11/01/2024

EX OFFICIO MEMBERS: MAYOR, CITY ATTORNEY, CITY MANAGER, CITY ENGINEER, CODE ENFORCEMENT OFFICER

*CHAIR
**VICE CHAIR

SEASIDE CITY TREE BOARD

(Meetings are scheduled every other month on the third Wednesday at 4:00 PM)

The purpose of the City Tree Board is to study, investigate, and develop and/or update annually, a written plan for the care, preservation, pruning, planting, replanting, removal or disposition of trees in parks, along streets, and in other public areas. The Tree Board, when requested by the City Council, shall consider, investigate, make findings, report and recommend upon any special matter or question coming within the scope of its duties and responsibilities,

(1) Develop criteria for city staff and/or contractors to apply in making decisions entrusted to staff and/or contractor discretion,

(2) Designate Heritage Trees on public and private lands within the city,

(3) Promote the planting and proper maintenance of trees through special events including an annual local celebration of Arbor Day, and

(4) Obtain the annual Tree City USA designation by the National Arbor Day Foundation.

The Board consists of five members, appointed by the City Council for a three-year term, and who are residents, or owners or employees of businesses within the city limit.

The City Tree Board shall schedule meetings as needed and elect a chairperson and a vice-chairperson. No more than 3 unexcused absences allowed in a calendar year.

Tree Board members serve without salary or compensation of any nature.

COMMITTEE/COMMISSION APPOINTMENT

1. **Date Council Notified:** **March 17, 2021**

   Name: Arnold Olsen

   Commission/Committee: **City Tree Board Committee**

   Resignation Date: **March 17, 2021**

   Term Expiration Date: **June 30, 2021**

   Wants to be considered again: **No**

2. **Applicants:**

3. **Nominations:**

4. **Appointment:**

Kimberley Jordan

From: Arnold Olsen <deerelk@msn.com>
Sent: Wednesday, March 17, 2021 4:19 PM
To: Kimberley Jordan
Subject: RE: City Tree Board Meeting - Cancelled

Hello Kim – I have moved out of the area and can no longer serve on the board. Thank you for the opportunity to serve. Arnie Olsen

Sent from Mail for Windows 10

From: Kimberley Jordan
Sent: Wednesday, March 17, 2021 4:05 PM
To: Arnie Olsen; Bill Barnes; Dale McDowell; Dan Stark; John Carter; Pam Fleming
Subject: City Tree Board Meeting - Cancelled

I apologize I did not send out the reminder notice for the City Tree Board.

The City Tree Board is cancelled. The next meeting will be May 19, 2021.

Thanks

Kim Jordan, City Recorder
City of Seaside
989 Broadway
Seaside, OR 97138
(503) 738-5511

CITY of SEASIDE

OREGON'S
FAMOUS
ALL-YEAR
RESORT

989 BROADWAY
SEASIDE, OREGON 97138
(503) 738-5511

CITY TREE BOARD

Term of Office: 3 years

Number of Members: 5

NAME	ADDRESS	PHONE	TERM EXPIRES
(VACANCY) OLSEN			6/30/2021
JOHN CARTER	PO BOX 679	738-4387	6/30/2022
PAM FLEMING	1255 AVENUE 'B'	738-5637	6/30/2023
DAN STARK	802 25TH AVENUE	440-0415	6/30/2023
WILLIAM BARNES	2070 COOPER ST.	503-739-2118	6/30/2024
DALE MCDOWELL	1387 AVENUE 'U'	738-5112	STAFF REPRESENTATIVE

ORDINANCE NO. 2021-03

AN ORDINANCE OF THE CITY OF SEASIDE, OREGON, AMENDING CHAPTER 31 OF THE CODE OF ORDINANCES REGARDING THE COMMUNITY CENTER COMMISSION MEMBERSHIP

WHEREAS, the City Council wishes to amend the membership of the Community Center Commission.

NOW, THEREFORE, THE CITY OF SEASIDE ORDAINS AS FOLLOWS:

Section 31.050 Establishment. There is hereby established a Community Center Commission for the City of Seaside, Oregon.

Section 31.051 Membership. The Community Center Commission shall consist of five (5) ~~nine (9)~~ members who are not officials or employees of the city and who will be appointed by the City Council.

a)(1)A minimum of three (3) ~~five (5)~~ members shall reside within the city limits; a maximum of two (2) ~~four (4)~~ members may reside within the urban growth boundary, but outside the city limits.

(2)If a member moves his/her principal residence outside the city limits or urban growth boundary during his/her term, the position shall be vacated.

b) A vacancy shall occur upon the death, resignation, or inability to serve of any member. Resignations, when made, shall be addressed to and accepted by the Council. The Council may remove a member for a cause deemed sufficient by the City Council. Successors shall be appointed by the Council for the unexpired term.

c) The members shall serve without salary or compensation of any nature.

Section 31.052 Terms of Office. A Community Center Commissioner's term of office shall commence on the first day of June of the first year of his/her term. Original appointments shall be as follows: Two (2) ~~Three (3)~~ appointees for one year; two (2) ~~three (3)~~ appointees for two years; and one (1) ~~three (3)~~ appointees for three years. Thereafter, appointments shall be for a three-year period or until an incumbent's successor is appointed and qualified. Any portion of a term exceeding one-half the period of the term shall be considered a full term.

Section 31.053 Officers.

a) Each year, at the first meeting of the Commission, the members shall appoint one of their members as Chairman and one as Vice-Chairman.

b) One member of the Commission will serve as secretary. Minutes of all meetings will be filed with the Seaside City Council.

Section 31.054 Meetings; Removal of Members.

a) The Community Center Commission shall hold a regular meeting at least once each month of the calendar year,

b) Any person appointed by the City Council to serve on this commission who misses three (3) or more regularly scheduled meetings during a twelve-month period shall be notified by letter that the position must be vacated. The individual may appeal the decision; but if the absences are found not to have been for good cause, the position shall be vacated.

Section 31.055 Power and Duties. The Community Center Commission shall have the powers and duties which are now or may hereafter be assigned to it by Charter, ordinance, resolution, or order of this city and in addition it will:

a) Recommend and make suggestions to the Council concerning matters relating to the well being of the Community Center and its users.

b) Receive directions from the Council concerning matters relating to the well being of the Community Center and its users.

Section 31.056 Rules of Procedure. Except as otherwise established by the City, the Community Center Commission may adopt rules governing the conduct of its business.

The amendment in Ordinance No. 2021-03 will take effect on the thirtieth day after its adoption by the City Council of the City of Seaside, Oregon.

ADOPTED by the City Council of the City of Seaside on this ____ day of _____, 2021, by the following roll call vote:

YEAS:
NAYS:
ABSTAIN:
ABSENT:

SUBMITTED to and APPROVED by the Mayor on this _____ day of _____, 2021.

JAY BARBER, MAYOR

ATTEST:

Mark J. Winstanley, City Manager

CITY OF SEASIDE MEMORANDUM

To: **Mayor & City Council**

From: **Community Development Department**

Date: **July 21, 2021**

Subject: **Resolution #3992, Adoption of the Clatsop County Multi-Jurisdictional Natural Hazards Mitigation Plan**

Background:

The City of Seaside's annex to the Clatsop County Natural Hazards Mitigation Plan (NHMP) was originally adopted on May 11, 2015. The plan requires periodic updates, and City Council approved entering into an Intergovernmental Agreement (IGA) with the Department of Land Conservation and Development (DLCD) to join in a county wide update process to the adopted plan on January 14, 2019. The updated plan would then be forwarded to Federal Emergency Management Agency (FEMA) for review and approval prior to the final adoption by all of the participating jurisdictions and agencies in this update process.

The updated Clatsop County Multi-Jurisdictional Natural Hazard Mitigation Plan (CCMJNHMP) has now been reviewed by FEMA and provided with pre-approval (see attached letter) pending the final adoption by all of the participants in the process. Approval by FEMA is required in order for a jurisdiction to be eligible for funding assistance from three federal programs: The Building Resilient Infrastructure and Communities (BRIC), the Hazard Mitigation Grant Program (HMGP), and the Flood Mitigation Assistance (FMA) program.

The attached resolution (Res. #3992) will formally adopt the updates to the consolidated plan (CCMJNHMP) that covers all of Clatsop County. The plan can be accessed from the Clatsop County Emergency Management web page at https://www.co.clatsop.or.us/em/page/emergency-management-planning and then follow the link at the bottom of the page to the DRAFT 2021 Natural Hazard Mitigation Plan.

Recommended City Council Action:

Move to approve Resolution 3992 adopting the updated Clatsop County Multi-Jurisdictional Natural Hazard Mitigation Plan after being read by title only.

Attachments:

FEMA Letter

Resolution 3992

U.S. Department of Homeland Security
FEMA Region 10
130 228th Street, SW
Bothell, WA 98021-8627

FEMA

February 27, 2021

Ms. Annie Bashant
State Hazard Mitigation Officer
Oregon Military Department
Office of Emergency Management
P.O. Box 14370
Salem, Oregon 97309

Dear Ms. Bashant:

The Federal Emergency Management Agency (FEMA) Region 10 completed a pre-adoption review of the draft *Clatsop County Multi-Jurisdictional Natural Hazards Mitigation Plan*. The attached Mitigation Plan Review Tool documents the Region's review and compliance with all required elements of 44 CFR Part 201.6, as well as identifies the jurisdiction participating in the planning process. This letter serves as Region 10's commitment to approve the plan upon receiving documentation of its adoption by the participating jurisdiction.

Formal adoption documentation must be submitted to FEMA Region 10 by at least one jurisdiction within one calendar year of the date of this letter, or the entire plan must be updated and resubmitted for review. Once FEMA approves the plan, the jurisdiction is eligible to apply for FEMA Hazard Mitigation Assistance grants.

Please contact Kyle McCormick, acting Regional Mitigation Planning Program Manager, at (202) 856-2030 or kyle.mccormick@fema.dhs.gov with any questions.

Sincerely,

JOHN D SCHELLING

John D. Schelling
Risk Analysis Branch Chief
Mitigation Division

Attachment

EG:v1

RESOLUTION #3992

A RESOLUTION OF THE CITY OF SEASIDE, OREGON, ADOPTING THE CLATSOP COUNTY MULTI-JURISDICTIONAL NATURAL HAZARDS MITIGATION PLAN

WHEREAS, response to and recovery from major emergencies and disasters requires proper pre-planning; and

WHEREAS, the City of Seaside has participated in a County wide collaborative effort to update the Clatsop County Natural Hazard Mitigation Plan previously adopted by Seaside City Council Resolution 3839 on May 15, 2015; and

WHEREAS, the adoption of a Clatsop County Natural Hazards Mitigation Plan is required to seek assistance through FEMA for Pre-Disaster Mitigation, Hazard Mitigation and Flood Mitigation funds; and

WHEREAS, the use of the Natural Hazards Mitigation Plan will assist the City to better plan for and mitigate natural hazards in a more effective manner, so as to better protect and serve our citizens in times of crisis; and

WHEREAS, the adoption of the Natural Hazards Mitigation Plan provides a collaborative and community-wide view of the specific hazards and recommended mitigation strategies; now, therefore,

THE SEASIDE CITY COUNCIL RESOLVES AS FOLLOWS:

SECTION 1. The City Council hereby adopts the draft 2021 Clatsop County Multi-Jurisdictional Natural Hazard Mitigation Plan (CCNHMP) attached to this resolution by reference.

SECTION 2. The draft 2021 Clatsop County Multi-Jurisdictional Natural Hazard Mitigation Plan (CCNHMP) will be available for viewing in the City of Seaside Community Development Department, via a link on the City's website, the Clatsop County website, or in the office of the Clatsop County Emergency Management Division.

SECTION 3. This Resolution shall become effective upon Council adoption.

PASSED by the Council of the City of Seaside this ____ day of _____, 2021.

SUBMITTED to the Mayor and APPROVED by the Mayor this ____ day of _____, 2021.

_____
JAY BARBER, MAYOR

ATTEST:

_____
Mark J. Winstanley, City Manager

CITY of SEASIDE

OREGON'S
FAMOUS
ALL-YEAR
RESORT

PUBLIC WORKS DEPARTMENT
LOCATION: 1387 AVE U
MAIL: 989 BROADWAY
SEASIDE, OREGON 97138
(503) 738-5112

July 21, 2021

Recommendation to City Council

From: Dale McDowell – Public Works Director

To: The Honorable Mayor and City Council Members

RE: Hydro Excavation Vactor Truck Replacement

Dear Honorable Mayor and City Council Members,

Seaside Public Works staff have been searching for a replacement of our existing Vactor Truck. The Vactor Truck is used by all of the Departments from Cleaning Catch Basins to excavation of broken Waterlines to Cleaning Sewer Mains. Using the Vactor Truck eliminates the need for opening large areas in the street, and repairs are completed much faster with minimal damage to the roadways. Our research over the last two years has finally found a suitable replacement, a truck that is capable of being used in all three departments and at a reasonable cost.

Our City Manager and the Budget Committee set aside a line item on Page 122 Capital Outlay "Equipment" in the amount of $150,000 for this purchase along with budgeted monies from the Street Department and the Water Department for Equipment. Our existing Vactor Truck will be sold. The cost of the replacement Vactor Truck is as follows:

Enviro-Clean Equipment:	$199,499.00
Installation of a Splash Guard	$ 3,500.00
Total:	$202,999.00

Based on a review by City staff, it is our recommendation to purchase the Vactor Truck from Enviro-Clean Equipment, Inc. in the amount of $202,999.00.

Respectfully yours,

Dale M. Sowell

Dale McDowell
Public Works Director

Technical Memorandum for AWIA Risk and Resilience Assessment

City of Seaside

June 2021

Murraysmith

888 SW 5th Acenue
Suite 1170
Portland, OR 97204

Technical Memorandum

Date: June 28, 2021

Project: City of Seaside: AWIA 2018 Risk and Resilience Assessment and Emergency Response Plan

To: Dale McDowell
City of Seaside

From: Kelsey VandeBergh, PE
Chris Young

Re: AWIA Risk and Resilience Assessment Tech Memo

Introduction

Murraysmith, Inc. (Murraysmith) has prepared a technical memorandum (TM) summarizing the City of Seaside's (City's) American's Water Infrastructure Act (AWIA) Risk and Resilience Assessment (RRA) development. This TM provides a summary of Murraysmith's review of City resources, methodology, software, and data input values. This TM also provides a summary of the RRA findings and next steps in AWIA Compliance.

Background

The Public Health Security and Bioterrorism Preparedness and Response Act (Bioterrorism Act) is the basis for the AWIA. The 2002 Bioterrorism Act addresses a wide range of security concerns within the U.S. Title IV of the Bioterrorism Act amended the Safe Drinking Water Act with Section 1433 to address various threats to community water systems. Section 1433 required each community water system serving a population greater than 3,300 persons to conduct a vulnerability assessment, focused on water system vulnerability to malevolent acts of terrorism and other international threats, certify its completion, and submit a copy to the Environmental Protection Agency (EPA). Pursuant to their Records Management Policy, the EPA intends to retire the studies and in 2018, the AWIA was signed into law (EPA, 2018).

The purpose of the 2018 AWIA is to establish an ongoing culture of resilience and emergency preparedness within all water systems. The AWIA Section 2013 requires each community water system serving more than 3,300 people to complete an RRA focused on the risks to, and resilience of its water system from malevolent acts and natural hazards, and complete or update their ERP that incorporates the findings of the RRA. (EPA, 2020).

Risk and Resilience Assessments evaluate a water system's consequences, threats, and vulnerabilities from potential malevolent threats and natural hazards (EPA, 2019a). Utilities are also required to review their RRA every five years, revise, if necessary, and submit a recertification to the EPA. RRAs must address the six requirements and assess a water system for the following.

1. The risk to the system from malevolent acts and natural hazards
2. The resilience of the pipes and constructed conveyances, physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities, electronic, computer, or other automated systems (including the security of such systems) which are utilized by the system
3. The monitoring practices of the system
4. The financial infrastructure of the system
5. The use, storage, or handling of various chemicals by the system
6. The operation and maintenance of the system

The AWIA Section 2013 also requires each community water system serving more than 3,300 people to assess and mitigate cybersecurity risks to their physically or logically connected process control systems (PCS) and enterprise systems that could impact:

1. Electronic, computer, or other automated systems (including the security of such systems) which are utilized by the system
2. The monitoring practices of the system (including network monitoring)
3. The financial infrastructure of the system (accounting and financial business systems operated by a utility, such as customer billing and payment systems) (West Yost, 2019)

Data Collection Gap Analysis

Murraysmith worked with the City to gather and review existing documentation that has been previously completed, or is in the process of being completed, to validate major aspects of the RRA and ERP the City already has and consider additional content added per the new requirements of the AWIA. Murraysmith also visited all water system assets with City staff on April 13, 2021. On June 28, 2021, Murraysmith provided the City with a Draft Gap Analysis TM, provided in **Appendix A**, that summarizes the findings of the gap analysis.

Risk and Resilience Assessment Development

Murraysmith used the EPA recommended ANSI/AWWA J100-10 Risk and Resilience Management of Water and Wastewater Systems Standard (AWWA J100) process to guide the assessment, and

EPA's Vulnerability Self-Assessment Web 2.0 Tool (VSAT) to calculate the baseline risk for each asset-threat pair. Each of these tools is described in further detail below.

Vulnerability Self-Assessment Web 2.0 Tool (VSAT)

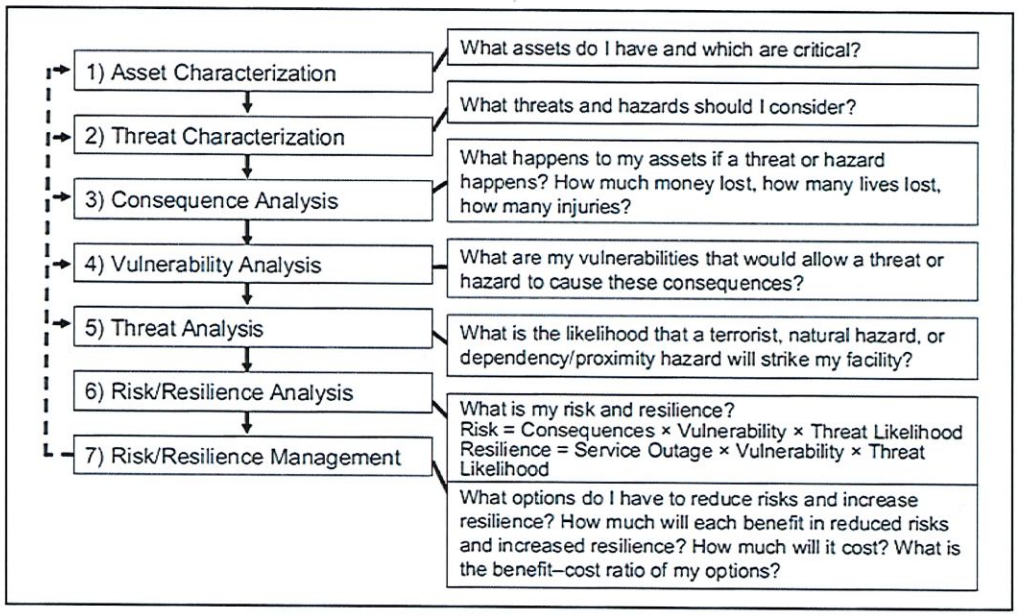
The EPA designed VSAT to help water systems comply with AWIA requirements and has been recently modified to be consistent with the AWWA J100 Standard (EPA, 2019b; Pasqualini, 2016). Key parts of VSAT used for this analysis include:

- Utility Resilience Index: Provide utility information to assess its overall resilience to risk.
- Qualitative Risk Assessment: Identify critical asset categories for which a malevolent act or natural hazard may present a significant risk.
- Quantitative Risk Assessment: Quantify the risk of a specific malevolent act, natural hazard, or dependency/proximity threat to a defined utility asset.
- Report: Download a detailed report of completed assessments.

AWWA J100

The AWWA J100-10 uses the Risk Analysis and Management for Critical Asset Protection (RAMCAP) seven-step process developed by ASME (AWWA, 2010), shown in **Figure 1.**

Figure 1 | Seven-Step RAMCAP Process



The first five steps of the RAMCAP process involve determining the consequences, vulnerabilities, and likelihoods for every critical asset and threats in the City's water system. The output of steps one through five are inputs for step six, which determines the City's current level of risk and

resilience and assigns a dollar value for each risk. Step 7 of the RAMCAP process, an evaluation of capital and operational needs for risk and resilience management for the system, is optional for utilities and was not completed for the City's RRA.

Below is a description of the City's RRA development, organized by the first six RAMCAP steps.

RAMPCAP Steps 1 & 2: Asset, Threat Characterization (Asset-Threat Pairing)

Asset Characterization

For the RRA, Murraysmith listed all the City's physical, cyber, and human/living elements and assets of the City's water system. Critical assets are summarized in **Table 1.**

Table 1 | List of City's Critical Assets

City Critical Assets	Description
Intake	Source
Water Treatment Plant	Treatment
Peterson Point Earthen Reservoir	Raw Water Reservoir
South/Peterson Point Reservoir	Reservoir
East Hills Reservoir	Reservoir
North Reservoir	Reservoir
Raw Water Pump Station	Pump Station
Necanicum Valley Booster Pump Station	Pump Station
Tillamook Head/Sunset Blvd Booster Pump Station	Pump Station
East Hills Booster Pump Station	Pump Station
Vista Ridge Booster Pump Station	Pump Station
Regal Elk/Royal View Booster Pump Station	Pump Station
Thompson Falls Booster Pump Station	Pump Station
Whispering Pines Booster Pump Station	Pump Station
Gearhart System Intertie	Intertie
18" Transmission Pipe – Intake to Water Treatment Plant	Pipe and Services
24" Transmission Pipe – Water Treatment Plant to Seaside	Pipe and Services
Backbone Piping[1]	Pipe and Services
SCADA	IT Security
Financial System	I&C

Note:

1. For purpose of evaluation, backbone piping consists of the main transmission lines to reservoirs. Approximately 40.547 LF (17 percent of distribution system)

Threat Characterization

Murraysmith reviewed and listed potential threats that each asset may face based on the AWWA J100 standard. AWWA J100 provides a baseline reference list of threats as an all-hazards approach and groups these threats into threat categories including:

1. Malevolent threats – a man-made threat or a threat posed by an adversary that would be detrimental to an asset.

2. Natural hazards – a threat posed by a natural event

3. Dependency and proximity threats – a threat based on an asset's reliance on something (dependency) or based on an asset's relative nearness to other facilities (proximity).

Several threats identified in AWWA J100 were not included in the City's threat list and are further described below.

1. Vehicular Threats – Not relevant due to locations of City's assets

2. Marine Attack Threats – Not relevant because none of the City's assets are accessible from maritime transportation

3. Ice Storm Hazard - Not applicable in the City's region

Although the Tornado Natural Hazard is also not generally applicable to the City's region, this threat was kept and intended to capture potential high wind scenarios. Several other threats were added to the list to address local concerns, Tsunami events, and wildfires.

Additionally, to simplify, threats similar in type, category, and with comparable consequences were combined, e.g., Aircraft, Helicopter, Small Plane, Regional Jet, and Flight Jet were combined as "Aircraft" and assumed to pose similar consequences. **Table 2** summarizes the list of threats reviewed for the assessment.

Table 2 | City Threat Characterization

Threat Category	AWWA J100 Threat Type
Malevolent Acts	Attack: Aircraft
	Product Contamination: Accidental
	Product Contamination: Intentional
	Sabotage: Cyber- Insider/Outsider
	Sabotage: Physical- Insider/Outsider
	Theft or Diversion: Cyber- Insider/Outsider
	Theft or Diversion: Physical- Insider/Outsider
Natural Hazards	Earthquake
	Flood

Threat Category	AWWA J100 Threat Type
	Tsunami
	High winds
	Wildfire
	Pandemic
Dependency and Proximity	Loss of Key Customers
	Loss of Key Employees
	Proximity
	Loss of Key Suppliers
	Loss of Transportation
	Loss of Utilities

Asset-Threat Pairing

Identified critical assets and threats were sorted into a matrix to list all resulting asset-threat pairs. Asset-threat pairs were screened based on perceived threat likelihood, asset vulnerability, and consequence of the threat event to capture the highest priority asset-threat pairs to carry through the remaining steps of the RAMCAP risk assessments.

On May 18th, 2021, a workshop was held with the City's Project Team and Murraysmith as a collaborative exercise to review, rate, and identify the City's most critical asset-threat pairs. The asset-threat pair identifies the impact to water service if an asset-threat pair were to occur. The team began by creating an asset-threat matrix and qualitatively assigning scores to a total of 340 pairs comprised of the 21 critical assets and 16 prioritized threats. The complete asset-threat matrix scoring is provided in **Appendix B**.

Murraysmith and City Staff rated each asset-threat pair with a qualitative consequence, vulnerability, and threat likelihood (C, V, T) value of 1, 3, or 5, representing low, medium, and high priority, respectively. A general definition of the preliminary CVT rating is provided below.

- Preliminary Consequence Rating (C): the level of losses suffered by the City and by the community served by the asset due to the impact of the threat,
- Preliminary Vulnerability Rating (V): susceptibility of the threat to damage the asset,
- Preliminary Threat Likelihood Rating (T): probability of the threat affecting the asset.

The asset-threat pair scoring was determined by multiplying the qualitative C, V, T values, creating a rating within the range of 1 through 125. All pairs with a rating of 75 or higher were determined to be a priority asset-threat pair to be further analyzed in the risk assessment process. There were a total of 13 pairs prioritized after this analysis, which are shown in **Table 3**.

Table 3 | Asset-Threat Pairs

Asset-Threat Pair	Critical Asset	Specified Threat
1	Intake	Contamination
2	Water Treatment Plant	Earthquake
3		Wildfire
4		Transportation
5	Raw Water Pump Station	Asset Proximity
6	North Reservoir	Physical – Assault (small plane)
7	Peterson Point Reservoir	Earthquake
8	Raw water transmission piping – Intake to Water Treatment Plant	Earthquake
9	Transmission Piping – Water Treatment Plant to City	Earthquake
10	Backbone Piping	Earthquake
11	SCADA System	Loss of other utilities
12	Seaside Water System	Loss of Key Employees
13		Physical Insider

While only the 13 prioritized asset-threat pairs were evaluated, several asset-threat pairs scored lower than 75 and should still be considered relevant. It is assumed that, as the City's RRA is updated every five years, per the requirements of AWIA, recommendations will be implemented to mitigate the risk of the highest priority pairs. Subsequently it is anticipated that pairs currently with medium preliminary risk ratings will be prioritized with future RRA updates.

RAMPCAP Step 3, 4 & 5: Consequence, Vulnerability, & Threat Analyses (CVT Analysis)

Consequence Analysis

The Consequence Analysis establishes the total cost (in dollars) of a consequence that would result for each asset-threat pair. This value, referred to as the "Calculated Consequence Value" considers four components described below.

1. The Utility Financial Impact – includes the water system's lost revenues, increased operating costs, and asset repair and replacement costs.

2. Regional Economic Impact – includes lost revenues associated with businesses served by the system that are directly affected by the disruption in services caused by the scenario. Estimates are proportional to the extent and duration of disruption of normal services, but also consider the potential ability of affected businesses to implement resilient responses that may mitigate their revenue loss.

3. Fatalities – includes the loss of human life.

4. Injuries – includes serious injuries/illnesses associated with exposures to hazardous gases, unclean drinking water, or raw sewage.

Calculated Consequence Values for each asset-threat pair are summarized in **Appendix C.**

The Water Health and Economic Analysis Tool Calculator (WHEAT) was used to determine the Calculated Consequence Values to conduct the consequence analysis within VSAT (EPA, 2019b). WHEAT was developed by EPA to help utilities calculate likely health and economic outcomes, and particularly, to offer a detailed consequence analysis for asset-threat pairs. A simplified version of the WHEAT Calculator is integrated into VSAT to assist with estimating public health and economic consequences. To estimate these consequence values, WHEAT uses the provided asset/threat pair, the City's location, and baseline water system inputs.

For each asset-threat pair, WHEAT uses the following inputs.

- Duration of service outage in days to bring the system back on-line for all the City's costumers for each critical asset, based on professional judgement.
- Percentage of customers without service in each scenario, based on the percentage of customers each critical asset provides service for.
- Asset replacement cost estimate (in rough order of magnitude) to determine the impacts of a specified threat on a critical asset. Asset replacement cost estimates are detailed in **Appendix D.**

Vulnerability Analysis

The Vulnerability Analysis determines the ability of each critical asset to withstand the specified threat. This analysis calculates the likelihood as a percentage that a selected threat would result in the estimated consequences if a malevolent event were successful, or a natural hazard or dependency/proximity threat would cause the estimated consequences.

The Vulnerability Calculator within VSAT was used to estimate the vulnerability likelihood and incorporates existing security capabilities and facility structural components, in addition to countermeasures, mitigation measures, and their effectiveness in reducing vulnerability to threats. The City's ability to detect a malevolent action, delay or stop the threat, and respond in order to reduce the likelihood of damage to a critical asset was assessed by considering the City's current security and monitoring measures, as well as response protocols. For natural hazards or dependency/proximity threats, the City's ability to prepare their assets or operations, respond to damage to make repairs, and recover utility operations was assessed by considering the City's current communication plans, parts inventory, staff training, emergency management systems, and recovery protocols in the City's ERP. A summary of the City's calculated Vulnerability Values are included in **Appendix C.**

Threat Likelihood Analysis

The Threat Likelihood is an estimated value between zero (0) and one (1) and indicates the likelihood of a malevolent event, or natural or dependency/proximity hazard, occurring at a City's specified critical asset within a one-year period. Order-of-magnitude likelihood values for malevolent events are provided within VSAT when the malevolent threat is specified. These values are based on national trends and are not specific to any one utility. Default threat likelihood values were used for the Threat Likelihood Analysis for malevolent threats and can be changed based on site-specific information or professional judgement. VSAT also provides several order-of-magnitude threat likelihood values for natural hazards and dependency/proximity threats that can be chosen for the City based on site-specific information or professional judgement. The values provided by VSAT are based on historical frequency data for ice storms, tornadoes (high wind), and earthquakes based on the City's location. Annual Threat Likelihood values for each asset-threat pair are summarized in **Appendix C.**

RAMCAP Step 6: Risk/Resilience Analysis

A Baseline Risk Assessment was conducted for each of the City's asset-threat pairs. The Baseline Risk value is a monetized value calculated in VSAT using the following formula.

Risk ($) = Consequence ($) x Vulnerability (%) x Threat Likelihood (%)

The Baseline Risk is the product of the previously determined total consequences (Step 3), likelihood of a threat occurring (Step 4), and the vulnerability of damage (Step 5) to the City's critical asset if the specified threat occurs. Higher Baseline Risk values indicate asset-threat pairs that pose more risk. The calculated Baseline Risk values for each asset-threat pair is provided in **Appendix C.**

Utility Resilience Index

VSAT calculates a Utility Resilience Index (URI), which indicates the City's current overall state of resilience to withstand a threat event by considering the City's ability to respond to and recover from an event that impacts service or critical operations. The URI can also be used to highlight deficiencies in the City's preparedness, allowing the City to plan, prioritize, and distribute limited sources when addressing an incident that may compromise the City's water system. The City's calculated URI can be found in **Appendix C.**

The URI is calculated using 12 independent operational and financial indicators and assess the varying levels of action or capabilities that support system level resilience (EPA, 2019b; Morley, 2012). Operational indicators include:

1. Development and implementation of an ERP for immediate response to incidents of all types

2. National Incident Management System (NIMS) Compliance or training provided to key staff to support structure for response activities

3. Mutual Aid and Assistance, e.g., Washington Water/Wastewater Agency Response Network (WAWARN) participation, for utility peer support for rapid response to incidents

4. Emergency power for critical operations, as power is often a key factor in response after disasters

5. Capabilities to meet minimum daily demand/treatment when production or treatment facility is nonfunctional

6. Lead time for the repair, replacement, or recovery of critical parts and equipment and includes physical and cyber/process control systems

7. Percentage of response-capable staff who are available for critical operations and maintenance positions with cross-trained backup staff

Financial indicators include:

1. Development and implementation of a Business Continuity Plan (BCP) to denote risk management principles that supports the utility's operations

2. Utility Bond Rating (UBR) to represent a utility's ability and willingness to satisfy financial obligations

3. Government Accounting Standards Board (GASB) Assessment to indicate the percentage of utility infrastructure evaluated and the overall commitment to asset management

4. Unemployment level in the community served by the utility to provide insight on the fragility of the community to withstand a significant event

5. Median Household Income to also provide another perspective on the fragility of the community to withstand a significant event

The URI is calculated within VSAT using a weighing scheme developed by Morely (2012) and based on utility-vetted prioritization of utility resilience indicators and elicited expert support. The URI is 45 percent for the City of Seaside based on the answers summarized in **Appendix C**.

Cybersecurity Analysis

Murraysmith subcontracted Triad Consulting and System Design Group (Triad) to perform a comprehensive cybersecurity analysis using AWWA's Cybersecurity Guidance and Assessment Tool, Version 3.0 (Cybersecurity Use Tool, Use Tool). This Use Tool aligns with the National Institute of Standards and Technology (NIST) Cybersecurity Framework and Section 2013 of AWIA. The tool has twenty-two yes or no questions and utility staff that is responsible for or knowledgeable of the

design, operation, and maintenance of the utility's process control system (PCS) and information technology completes these questions.

Based on answers provided by the City during the Cybersecurity workshop led by Triad on May 27th, 2021, Triad generated a memorandum in conjunction with the AWWA Cybersecurity Use Tool. Results from the Use Tool showed a total of 89 recommended controls. The controls are categorized into priorities from 1 through 4. These priorities are defined as follows.

- Priority 1 Controls – These controls represent a minimum level of security. If not already in place, these controls should be implemented as soon as possible.
- Priority 2 Controls – These controls build on Priority 1 controls and have the potential to provide a significant and immediate increase in security of an organization.
- Priority 3 Controls – These controls improve information security configuration and hygiene to reduce the number and magnitude of security vulnerabilities. They also improve operations of networked computer systems. They focus on protecting against poor security practices by system administrators and end-users that could give an attacker an advantage.
- Priority 4 Controls – These controls are more complex and provide proactive protection against more sophisticated attacks.

Of the 89 recommended controls, 54 are listed as "Not Fully Implemented". Of these 55 recommended controls, 38 are Priority 1 and Priority 2 controls. Cybersecurity recommendations include Policy, Supply Chain, Infrastructure, Resilience, Cyber Defense, and Physical Security (related to SCADA equipment) recommendations that address these 38 Priority 1 and 2 recommended controls and are provided in **Appendix D.**

Step 7: Risk and Resilience Management

Risk and resilience management is the process of considering the risks and existing countermeasures at each utility asset, determining mitigation actions to lower risk to an acceptable level at an acceptable cost, and implementing and managing the applied countermeasures (McLaughlin, 2015). The Risk and Resilience Management assessment consisted of identifying potential countermeasures in a Countermeasures Analysis, re-calculating the risk (referred to as "Improvement Risk" for the asset-threat pair) based on the implementation of the identified countermeasures, and conducting a Cost-Benefit Analysis that evaluates the net benefit of the potential countermeasure considering the capital costs for implementing the countermeasures against the Improvement Risk.

On June 23rd, 2021, a workshop was held with the City's Project Team and Murraysmith as a collaborative exercise to review the findings of the risk and resilience analyses and to discuss potential countermeasure implementation projects. During this workshop, the City and Murraysmith confirmed existing countermeasures in place at the City's critical assets, as well as

identified and prioritized potential countermeasure projects for each of the City's critical assets that may reduce the level of risk for the asset-threat pair. Potential projects that may reduce the level of risk for more than one asset-threat pair were also noted. The City also identified several countermeasures that had already been integrated between the start of analysis and this report.

Additionally, the requirements of the AWWA G430 Standard: Security Practices for Operations and Management were reviewed with the City to identify security practices already in-place at the City and those requirements the City would like to initiate and prioritize. Potential security programs for City implementation are summarized in **Appendix F**.

Countermeasure Analysis

Risk and Resilience Management includes a Countermeasure Analysis, which consists of two steps.

- Identifying existing countermeasures in place at the utility.
- Choosing potential countermeasures that may reduce the level of risk for the asset-threat pair.

The Countermeasure Analysis allows the comparison of the risk of each critical asset-threat pair with existing countermeasures and the estimated risk of that asset after implementing additional potential countermeasures.

Potential countermeasure projects were selected to address each asset-threat pair, and the net benefit of the projects were evaluated. Annualized costs are calculated in VSAT using a four percent finance rate over 10 years. The following potential countermeasures were evaluated for the water system.

1. Redundant Water Sources: This countermeasure addresses loss of critical backbone piping, Peterson Point Earthen Reservoir and/or water treatment plant function. Redundant water sources will allow other methods of water conveyance to Seaside if major sources are lost. *Estimated Annual cost: $6,165 (over 10-year period).*

2. Toxicity Monitoring: This countermeasure addresses contamination of raw water intake. This will help improve the probability of detection which will help stop contamination of the Peterson Point Earthen Dam raw water storage. *Estimate Annual Cost: $3,085 (over 10-year period).*

3. Airplane Warning Light: The North Reservoir is near a small airplane runway. The addition of an airplane warning light will reduce the risk of a crash onto the site. *This was addressed after the initial analysis and an airplane warning light has been constructed at the North Reservoir.*

4. Seismic Analysis: Complete seismic analysis of both Peterson Point Earthen Dam and Water Treatment Plant to identify seismic weak points and propose upgrades for seismic

resiliency to improve the resiliency of the City's primary water supply. *Estimated Annual Cost: $24,660 each or $49,320 total (over 10-year period).*

5. Annual Road Maintenance: This countermeasure addresses the loss of transportation to the water treatment plant. Annual road maintenance will decrease the risk of losing major access to the water treatment plant. *Estimated On-going Annual O&M Cost: $5,000 (per year)*

6. Raw Water Emergency Operation Analysis: This countermeasure addresses raw water pump station proximity loss. Emergency operation plans for the raw water pump station will help the City be more prepared in the event of the raw water pump station is inoperable. This is analysis is suggested to look at possible raw water routing changes when the raw water pump station and/or earthen reservoir are unable to operate. *Estimated Annual Cost: $6,165 (over 10-year period).*

7. Pipe Material On-Site: The addition of extra pipe material on-site will greatly improve the recovery of Raw Water Transmission Piping, Water Treatment Plant to City Transmission Piping and critical backbone piping. After a major earthquake event, the likelihood of receiving supplies quickly is low and this countermeasure will aid the rebuild of these structures. *Estimated Annual Cost: $620 (over 10-year period).*

8. Redundant Transmission Main: In the event of an earthquake, having a redundant transmission main will allow another form of conveyance of water supply and increase preparation, resiliency and recovery during an event as well as allow continuous supply of water to the city in an event. *Estimate Annual Cost: $1,359,240 (over 10-year period).*

9. Rehabilitate/Replace Transmission Main: The existing transmission main is already in need of improvements. This countermeasure will increase the resiliency of the structure and reduce the risk of losing the pipe in an event. *Estimated cost: $1,359,240 (over 10-year period).*

10. Water Master Plan Update and System Analysis: A water master plan update and system analysis in necessary for each asset within the water treatment system. Having a master plan will increase the preparation, resiliency and recovery of the City and its' employees for any event. *Estimated Annual Cost: $6,165 (over 10-year period).*

11. Redundant Raw Water Pipe: In the event that the raw water transmission pipe is inoperable, having a redundant source of raw water conveyance will improve the preparation and recovery of the system and allow continuous raw water supply while the main piping is down. *Estimated Cost: $2,548,575 (over 10-year period)*

12. Water ERP: Evaluate protocols and best management practices for incorporation into the ERP in the mandatory ERP update following certification of this RRA. These projects may improve the City's ability to respond to and recover from a threat event. Assumed two ERP

updates within a 10-year period at $25,000 each. *Estimated Annual Cost: $6,165 (over 10-year period)*. Examples of these considerations include:

a. Establishing an internal policy for notifying water operators of chemical spills
b. Improving operational response plans for the City's critical assets
c. Creating an IT after-hours or stand-by program
d. Increasing the City's parts inventory
e. Establishing/expanding agreements with local contractors for emergency work/aid

13. Documented Standard Procedures and Operations (Operations Manual): This countermeasure addresses the asset-threat pair of the loss of key employees to operate the City's water system. Documented standard procedures and operations would allow the City to operate their SCADA and controls during the sudden loss of key employees. *Estimated On-going Annual O&M Cost: $5,000 (per year)*.

14. Physical Security Updates: Physical security recommendations from Triad include addition of a water security program, additional signage, conduct regular maintenance checks of perimeter security fencing and vegetation on fence line, and the replacement of non-cut-resistant padlocks with high security locks. Electronic security recommendations from Triad include alarm relocation, alarm detection, semiannual alarm testing, and additional security cameras. For the purpose of the VSAT evaluation, costs for security recommendations were estimate as a total cumulative lump sum. *Estimated Annual Cost: $6,475 (over 10-year period)*.

15. Employee Training: This countermeasure will increase the City's resiliency to Loss of Key Employees through employee training to ensure knowledge of system operations and changes in system operations. *Estimated On-going Annual O&M Cost: $5,000 (per year)*.

These recommended countermeasures were evaluated for each asset-threat pair as shown in **Table 4**. Countermeasure projects were assigned to each pair based on their effectiveness for reducing Baseline Risk.

Table 4 | Risk and Resilience Management Summary

#	Asset	Threat	Baseline Risk [$/Year] (A)	Improvement Risk [$/Year] (B)	Risk Reduction [$/Year] (A-B)
1	Intake	Contamination	$ 30,954	$ 4,953	$ 26,001
2	Water Treatment Plant	Earthquake	$ 199,457	$ 77,209	$ 122,248
3		Wildfire	$ 63,905	$ 9,398	$ 54,507
4		Transportation	$ 1,661	$ 997	$ 664
5	Raw Water Pump Station	Asset Proximity	$ 38,594	$ 4,824	$ 33,770
6	North Reservoir	Physical – Assault (small plane)	$ 99,359	$ 16,344	$ 83,015

#	Asset	Threat	Baseline Risk [$/Year] (A)	Improvement Risk [$/Year] (B)	Risk Reduction [$/Year] (A-B)
7	Peterson Point Earthen Reservoir	Earthquake	$ 256,018	$ 53,337	$202,681
8	Raw water transmission piping – Intake to Water Treatment Plant	Earthquake	$ 76,504	$ 20,177	$ 56,327
9	Transmission Piping – Water Treatment Plant to City	Earthquake	$ 175,728	$ 8,786	$ 166,942
10	Backbone Piping	Earthquake	$ 22,125	$ 8,565	$ 13,560
11	SCADA System	Loss of Other Utilities	$ 12,719	$ 1,590	$ 11,129
12	Seaside Water System	Loss of Key Employees	$ 75,116	$ 4,127	$ 70,989
13		Physical Insider	$ 31,132	$ 4,670	$ 26,462

Summary

Murraysmith completed an AWIA Compliant RRA for the entirety of the City's water system following the AWWA J100 Standard and using the EPA's VSAT. Results of the RRA can be found in a report produced in VSAT and provided as **Appendix C**. The AWIA Compliant RRA will be self-certified by the City by submitting the risk and resilience assessment certification statement before June 30, 2021.

This RRA also meets the cybersecurity requirements of AWIA with AWWA's cybersecurity tool and the recommended improvements provided in **Appendix E**.

Next Steps in AWIA Compliance

Murraysmith will continue working with the City to update their existing ERP to meet the new AWIA standards. This ERP includes reviewing relevant AWWA standards to ensure the updated ERP aligns with the most up-to-date industry standards. Murraysmith will validate major contents of the existing ERP and will re-organize the existing plan to make sure it aligns with the current AWIA regulations. Murraysmith will then look for additional content to add to the ERP, which may include additional action plans not previously discussed in the RRA.

Appendix

A. Gap Analysis Technical Memorandum
B. Asset-Threat Pair Matrix
C. Risk and Resilience Assessment Summary Report Using VSAT Web 2.0
D. Cost Memo Technical Memorandum
E. Cybersecurity Recommendations Memorandum
F. Physical Security Recommendations Memorandum

References

American Water Works Association (AWWA). (2010). *AWWA J100-10(R13) Risk and resilience management of water and wastewater systems.* Denver, CO: Author.

Landers, J. (2020). Risk, Resilience, Response. *Civil Engineering*. Retrieved from https://www.asce.org/cemagazine/risk-resilience-response/

Machado-Leon, J. L. & Goodchild, A. (2017). Review of performance metrics of community-based planning for resilience of the transportation system. *Transportation Research Record, 2604*(1):44-53. doi:10.3141/2604-06

McLaughlin, J. W. (2015). *The AWWA J100 – What it is, why it is being updated, and why it matters to you* [Conference presentation abstract]. Ninety-fifth annual conference of the North Carolina AWWA-WEA, Raleigh, NC, United States. https://www.ncsafewater.org/resource/collection/BCF6A3CC-D01F-4A21-9653-9FDEA91227C9/PM_Mon_PM_01.55_McLaughlin2.doc

Morely, K. M. (2012). *Evaluating resilience in the water sector: Application of the Utility Resilience Index (URI)* [Doctoral dissertation, George Mason University]. GMU Campus Repository. http://mars.gmu.edu/xmlui/bitstream/handle/1920/7880/Morley_dissertation_2012.pdf?sequence=1&isAllowed=y

Murraysmith. (2015). *Water System Master Plan Update.* Portland, OR: Author.

Pasqualini, D. (2016). *Drinking water consequences tools: A literature review.* Prepared for the Los Alamos National Laboratory, Los Alamos, NM.

United States Environmental Protection Agency (EPA). (2018). *The Water Health & Economic Analysis Tool (WHEAT): Model Documentation.* Retrieved from https://www.epa.gov/waterriskassessment/download-page-water-health-and-economic-analysis-tool-wheat

United States Environmental Protection Agency (EPA). (2019a). *Risk and Resilience Assessments and Emergency Response Plans* [Fact Sheet]. Retrieved from https://www.epa.gov/sites/production/files/2019-04/documents/awia_factsheet_04-16-2019_v2-508.pdf

United States Environmental Protection Agency (EPA). (2019b). *VSAT Web 2.0 Data Entry Guide.* Retrieved from https://vsat.epa.gov/vsat/

United States Environmental Protection Agency (EPA). (2020). *America's Water Infrastructure Act: Risk Assessments and Emergency Response Plans.* Retrieved from https://www.epa.gov/waterresilience/americas-water-infrastructure-act-risk-assessments-and-emergency-response-plans

West Yost Associates (West Yost). (2019). *Water sector cybersecurity risk management guidance.* Prepared for the American Water Works Association. Denver, CO: Author.

Form submission from: City Council Public Comments

From: Seaside, OR via Seaside, OR <cmsmailer@civicplus.com>
To: publiccomment@cityofseaside.us
Date: 7/15/2021 12:18 PM

Submitted on Thursday, July 15, 2021 - 12:17pm
Submitted by anonymous user: 47.7.25.85
Submitted values are:

First Name: Denise
Last Name: Anderson
Address: 476 Fairway Court, Seaside
E-mail Address: denise.forbes@gmail.com
Phone Number: 602-677-6043
Public Comments for City Council or City Staff:
Hello Mayor Barber and Seaside City Council Members,
I am writing to express my support for a complete fireworks ban in the City of Seaside. The fireworks in our town have gotten completely out of control. There are people shooting them off regularly nearly all summer long, but at a minimum, for a month before and after the 4th of July. And these aren't benign, legal fireworks either. Every night this week there have been huge, concussive booms from people lighting M80-type fireworks on the Cove beach. These fireworks are completely disruptive to the residents of Seaside, especially our veterans, people with PTSD, and our domestic animals. Even more frightening is the fire danger that is posed by illegal fireworks. Something MUST be done to limit this risk to our community and surrounding area. Cannon Beach has effectively enacted a ban and Gearhart is considering the same. If Seaside does not enact a similar ban, everyone will come here to light off their illegal fireworks and conditions will be far worse than they are now. Please consider forming a committee to evaluate and solve the fireworks problem in Seaside. We, your taxpaying citizens, are here and willing to help however we can. Thank you.
If you would like to submit a photo or other documents along with your comment please upload them here:
Please select one of the following required options: I am stating that I would like this comment submitted to the City Council prior to its next meeting and included in the council packet. Further, I'm stating that by checking this box, I understand that it will become part of the public record. Comments made without a name and address cannot be added to the public record.

The results of this submission may be viewed at:
https://www.cityofseaside.us/node/7906/submission/991