APPENDIX D MITIGATION ACTION WORKSHEETS

Blank Mitigation Worksheet			
Mitigation Worksheet Instru			
Table Summary of Mitigation	ı Action Worksheets for	47 projects	



City of Seattle Hazard Mitigation Plan – 2020 Mitigation Action Worksheet

Worksheet is also available in MS List format (fill in form linked to Excel) on a new Teams Channel. Click "New Item" to enter each mitigation action.



1a. Mitigation Action Name: Click here to enter text.

1b. Mitigation Action Description: Provide a <u>brief</u> description of the action.	Note if the action involves a
cultural or historic resource.	

Click here to enter text.

2a. Lead Department/Organizat	ion: Click here to enter text.	
2b. Division/Line of Business (if	applicable): Click here to enter text.	
2c. Supporting Departments/Or	ganizations: Click here to enter text	
3. Action Status: New	\square Existing \square Potential (will not b	pegin within 5 years)
NOTE: Completed actions should Capabilities under "Key Accompl	be reported in the Status updates (ishments."	if in the 2015-2021 HMP) or in
4. Type of Action (Check all that	apply):	
☐ Non-Structural Mitigation Me	·	tructure/Capital Project ction Education and Awareness
5. Hazards Addressed (Check all	тпат арргуу:	
☐ All Hazards	☐ Flooding	☐ Snow and Ice Storm*
☐ Attacks☐ Cyber-attack/Disruption*	☐ HazMat Incidents/ Smoke☐ Infrastructure/Structural	☐ Transportation Incident☐ Tsunami/Seiches
☐ Disease Outbreaks	Failure	☐ Volcanic Hazards
☐ Earthquakes*	☐ Landslides	☐ Water Shortages
Excessive Heat Events	☐ Power Outages*	☐ Windstorms*
Fires	☐ Social Unrest	
NI H. Hazards with an asterick I	*) are ranked as the highest risk in t	no SHIVΔ



6a. Hazard Mitigation Plan Goals Supported (Check all that apply):
 □ Life and Safety □ Critical Infrastructure Protection □ Property Protection □ Natural, Historic or Cultural Resource Protection □ Resilient Economy □ Integrated Planning
6b. Race and Social Justice Focus Areas (Check all that apply): The action could reduce race-based disparities in any of the following focus areas (from Taskforce for Investments in the Black, Indigenous and People of Color Community).
 □ Inclusive Economy □ Climate Justice □ Community Safety □ Education Opportunity □ Community Supports (safety net) □ Community Wealth Building
6c. Description: Briefly describe how the action can have a positive impact in selected focus areas? Click here to enter text.
7a. Location: Provide information about the geographic location(s) of an action.
 □ Citywide, no specific or targeted location □ District or Neighborhood □ Specific Site(s)
7b. Location Description : Provide addition information about location such as the name of the neighborhood or district, or address(es) for specific sites. Click here to enter text.
7c. Benefit Area: Describe the geographic area (citywide, district, neighborhood) that will benefit from this action. Click here to enter text.
8. Timeline: \square Immediate \square < 1 year \square 1 – 3 years \square 3 – 5 years NOTE: Actions that will not begin within five years should be identified as a Potential Action in #3. Action Status.
9a. Anticipated Cost (if known): Click here to enter text.
9b. Funding Available: □ Yes □ Anticipated □ No
9c. Funding Source: ☐ Existing Budget ☐ Grant ☐ Bond/Levy ☐ No/minimal cost ☐ Other: Click here to enter text.
10. Date: Click here to enter text.
11. Contact Information:
Name: Click here to enter text. Phone: Click here to enter text. E-Mail: Click here to enter text.



12. Prioritization Criteria:

Mitigation Impact Criteria – How effective is this action? How does it impact broader City goals?

Mitigation Impact Criteria	Evaluation Rating	
Mitigation Effectiveness. Will the implemented action result in lives saved?		
Mitigation Effectiveness . Will the implemented action result in a reduction of disaster damage?		
Multiple Benefits . Will the action provide multiple community benefits beyond mitigation?	High = <mark>H</mark> Medium = M	
Collaboration . Will the action require collaboration between City departments and/or the community?	Low = L	
Racial Equity. Will the action reduce hazard vulnerability for BIPOC communities?		

STAPLEE Criteria - How implementable is this action?

STAPLEE Criteria	Evaluation Rating	
Social : What is the anticipated level of public support for the overall implementation and specific mitigation action?		
Technical To what degree Is the proposed action technically feasible?		
Administrative What level of staff and capabilities necessary to implement the action is available?	High = H	
Political Is there political support to implement and maintain the action?	Medium = M	
Legal To what degree are proper laws, ordinances, and resolutions in place to implement the action?	Low = L	
Economic How much do benefits seem to outweigh the costs?		
Environment Will the action positively affect the environment (land, water, endangered species)?		

City of Seattle Hazard Mitigation Plan – 2020 Mitigation Action Worksheet INSTRUCTIONS

The following instructions are designed to assist City of Seattle departments and community partners in identifying and prioritizing mitigation actions for the 2020 Hazard Mitigation Plan Update. The instructions supplement the 2020 Mitigation Action Worksheet and are meant to provide additional information for each of the worksheet elements.

You have two options for filling in and submitting the worksheet:

- WORD document fill in save file with extension your dept acronym and upload to the Teams 04 Mitigation Action, Files. If you choose to submit your mitigation actions as a WORD document, please bundle all the actions for your departments into a single WORD file.
- MS LIST "Worksheet" online form (a fill-in form linked to Excel) on Teams (or Sharepoint). If you enter mitigation actions here, you do not need to send any files to OEM. See page 8 for tips and instructions on using Worksheet.

General Guidance for Generating Mitigation Actions and Potential Actions

- Action should address the goals and objectives. Review the goals and strategies. (see #5).
- Action should be strategic, and could be implemented by multiple projects, plans or programs. For
 example, A group of ten related of capital projects would be one action, not ten actions. It should
 not be a standard or routine business practice.
- Actions should progress within a five-year period. They do not need to be fully implemented, but projects should begin substantially progress over that period.
- If an action does not meet the five-year criteria, but could become a high priority for your department, identify it as a **Potential Action** in question 3. Status. Potential Actions will not be included in the Mitigation Strategy table in the Plan but will be tracked by OEM for future mitigation funding opportunities.
- Consider your department's goals and initiatives for race and social justice. Think about how mitigation actions could better address those goals.
- Consider including a Plans action for your department to reflect any longer-range plans that includes or could include strategies or actions that reduce risk to hazards.
- Scan HMPs from other cities for ideas, especially those from large cities or west coast cities. Some plans can be found on Teams Background Files.

1. Mitigation Action:

Describe your action in a manner detailed enough to be understood by the plan's readers. Consider using the SMART method of describing objectives to develop your actions:

- Specific target a specific area for improvement.
- **Measurable** quantify or at least suggest an indicator of progress.
- Assignable specify who will do it.

- Realistic state what results can realistically be achieved, given available resources.
- **Time-related** specify when the result(s) can be achieved.

2a, 2b, 2c. Lead and Supporting Department/Organization:

Identify what City department(s), or community partner(s), would be primarily responsible for implementing the action. If your department is large, identify the division or line of business associated with the action. Identify any other City departments or community partner(s) that will be supporting the project.

3. Action Status:

- New Action

 The action is new and will be included for the first time in the 2020 plan update.
- **Existing Action** The action was implemented prior to the 2020 plan update but is ongoing, and additional or ongoing action is required for completion.
- **Potential Action** The action is speculative. It may not begin within the next five years, but could become a higher priority in future

4. Type of Action:

Type of Action	Description	Examples
Plans and Regulations	Regulatory actions or planning processes that result in reducing vulnerability to hazards. These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.	 Comprehensive plans Director's Rules Department Standard Operating Procedures Land Use Plans Subdivision regulations Building codes and enforcement NFIP Community Rating System Capital improvement programs Open Space Preservation Stormwater management regulations and master plan
Assessments and Studies	These actions are taken to better understand the potential impacts of identified hazards.	Seismic studies of City facilities
Infrastructure/Capital Project	These actions involve modifying existing buildings, structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.	 Utility undergrounding Structural retrofits Non-structural measures Sea walls and retaining walls Detention and retention structures Culverts
Non-Structural Mitigation Measures	These actions are physical actions taken that do not include structural modifications.	Secure furnitureInstall backup generator
Natural Systems Protection	These actions minimize damage and losses and also preserve or restore the functions of natural systems and cultural and historic resources.	 Sediment and erosion control Stream corridor restoration Green space management Conservation easements Wetland restoration and preservation Identification of historic and cultural resources in high hazard

Type of Action	Description	Examples
	These actions inform and educate residents, elected officials, and property owners about	 areas Radio or television spots Websites with maps and
Education and Awareness	hazards and potential ways to mitigate them. Although this type of mitigation reduces risk less directly than structural projects or regulation, it is an important foundation. A greater understanding and awareness of hazards and risk among local officials, stakeholders, and the public is more likely to lead to direct actions.	 information Real estate disclosure Presentations to school groups or neighborhood organizations Mailings to residents in hazard-prone areas StormReady Firewise Communities

5. Hazards Addressed:

This section lists all the hazards identified in the 2019 update of the *Seattle Hazard Identification and Vulnerability Analysis* (SHIVA). Hazards with an asterisk (*) are the top five hazards as ranked in the SHIVA, however a comprehensive mitigation plan must identify actions that address all 18 hazards. Check all hazards that will be mitigated by the action. If it is a general action, then check "All Hazards." Your department may have a specific responsibility for reducing the risk of certain hazards. If so, you may wish to focus your actions on those key hazards. Actions to address wildfire smoke are in the HazMat Incident category.

Examples:

- Seattle City Light should develop actions to reduce the effects of power outages.
- The Seattle Fire Department and Department of Transportation may develop actions to address hazardous materials.
- Seattle Public Schools should develop actions, in coordination with the Seattle Police Department, to address active shooter incidents.

6a. Hazard Mitigation Plan Goals Supported:

Identify which of the 2020 Hazard Mitigation Goals the action supports (you may select more than one):

GOAL 1: Protect life and safety and promote community resiliency.

- Objective 1.1. Conduct hazard specific public outreach to vulnerable areas.
- Objective 1.2: Reduce the possibility of damages and losses resulting from disease/pandemic hazards.
- Objective 1.3: Promote community resiliency through a comprehensive approach to preparing for the impacts of a changing climate.
- Objective 1.4: Increase the resiliency of the City's food system.
- Objective 1.5: Enhance the City's response capacity.

GOAL 2: Safeguard critical infrastructure and ensure continuity of service.

• Objective 2.1. Ensure system redundancies and backup power are available to support key City functions.

• Objective 2.2. Ensure protection of the City's information technology infrastructure.

GOAL 3: Protect public and private **property**.

- Objective 3.1: Reduce the possibility of damages and losses to City facilities and infrastructure from earthquakes and other geo-physical hazards.
- Objective 3.2: Reduce the possibility of earthquake-related damages and casualties due to Unreinforced Masonry Buildings.
- Objective 3.3: Reduce the possibility of damages and losses resulting from weather hazards.
- Objective 3.4: Reduce the possibility of damages and losses resulting from transportation and infrastructure hazards.
- Objective 3.5: Reduce the possibility of damages and losses resulting from intentional acts of destruction.
- Objective 3.6: Ensure that City building codes reflect the latest standards in seismic safety.

GOAL 4: Protect the natural environment and cultural and historic resources.

- Objective 4.1: Determine the earthquake vulnerability of historic landmarked properties.
- Objective 4.2: Reduce the use of or minimize the impacts of the use of potentially hazardous substances in City operations.

GOAL 5: Promote a resilient economy.

• Objective 5.1. Collaborate with local business to promote hazard mitigation.

GOAL 6: Promote a collaborative and **integrated** mitigation program.

- Objective 6.1: Incorporate hazard mitigation into other City plans and programs.
- Objective 6.2. Engage external partners in the City's mitigation planning process.

6b. Race and Social Justice Focus Areas:

Integrating race and social equity into the HMP is evolving. Methods proposed in this update may need more work. We look forward to feedback and more conversation with MWG to further refine our approach.

Below are focus areas for the City's Taskforce for Investments in BIPOC Communities. Indicate if the action has the potential to reduce race-based disparities in these focus areas (you may check more than one).

Focus Area	Examples
Inclusive Economy	Develop a contingency planning toolkit for small businesses in multiple languages.
Climate Justice	Accelerate flooding and sewer backup prevention projects in BIPOC neighborhoods.
Community Safety	Provide disaster preparedness training to BIPOC community-based organizations.
Community Supports (safety	Affordable housing seismic retrofit. Increase the quantity and quality of emergency food available.



net)	
Community Wealth Building	Integrate education about hazards into trainings for low income HH first time home buyer programs.
Education Opportunity	Assess early learning centers for seismic retrofits.

6c. Description:

Briefly describe how the action will have a positive impact in the selected focus areas. Example: Retrofitting early learning centers, which provide services to children from low income HH, will allow these centers to recover/ reopen more quickly after an earthquake.

7a & b. Location and Location Description:

As part of the update, OEM would like to collect location information that could be used to develop a GIS map of mitigation actions. For those projects with a specific location(s) (site, neighborhood, district), provide the name of the neighborhood(s), district(s)t or the street address(es). If there is a long list of site addresses, it is not necessary to list in the worksheet. Instead note the number of locations, and if GIS data is available.

7c Benefit Area:

Briefly describe the area that will benefit from the action. Sometimes the location of a mitigation action may provide benefits to a much wider area., note the geographic area (citywide, district, neighborhood) that will benefit from this action. For example, seismic improvements to a major bridge may be in a specific neighborhood but will benefit the whole city.

8. Timeline for Implementation:

Indicate the expected timeline for completion of the action. Mitigation actions included in the plan are expected to begin implantation and show progress within five years. If your mitigation action does not meet this criterion, indicate it is a Potential Action in #3.

9a. Anticipated Cost (if known):

If possible, identify the estimated cost of the action based on best available data. If the cost is unknown, you may make a more qualitative assessment of the cost impact based on the following considerations:

- **High** Existing funding levels are not adequate to cover the costs for the proposed action, and implementation would require an increase in revenue through alternate sources.
- Medium The action could be implemented with existing funding but would require a
 reapportionment of the budget or a budget amendment, or the cost of the action would have to be
 spread out over time.
- Low The action could be funded under the existing budget. The action is part of or can be part of an existing or ongoing program.

9b &c. Funding Available & Funding Source:

Identify whether funding for the action is currently or is anticipated to be available. If funding is available, please identify the anticipated funding source (e.g., existing budget, grants, bond/levy). The cost of some actions may consist only of staff time and administrative resources.



- **10. Date:** Indicate the date the Worksheet was completed.
- **11. Contact Information:** Contact should be the person could confirm information or provide additional information as needed. This could be you (MWG member) or another staff person at your department.

12. Prioritization Criteria

OEM will use the following ratings to identify potential projects for future funding opportunities. As criteria or programs vary, and new criteria or funding may arise, this information is not absolute. At the November 4th Meeting the MWG will review methods for developing an overall project ranking based on these criteria.

Mitigation Impact Criteria considers mitigation effectiveness, other benefits, and the City's RSJI goals. Use the prompt questions to evaluate the degree of effectiveness or positive impact of each action.

Mitigation Impact Criteria	Evaluation Rating	
Mitigation Effectiveness. Will the implemented action result in lives saved?		
Mitigation Effectiveness. Will the implemented action result in a reduction of disaster damage?	High = H	
Multiple Benefits. Will the action provide multiple community benefits beyond mitigation?		
Collaboration . Will the action involve collaboration between City departments and/or the community?	volve collaboration between City departments and/or the	
Racial Equity. Will the action reduce hazard vulnerability for BIPOC communities?		



STAPLEE is an acronym for the seven criteria for action feasibility. Use the prompt questions to evaluate how well the criteria for each action is met.

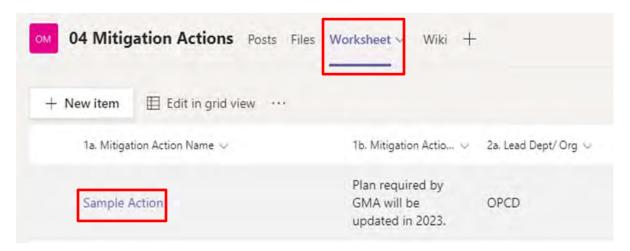
STAPLEE Criteria	Evaluation Rating	
Social : What is the anticipated level of public support for the overall implementation and specific mitigation action?		
Technical To what degree Is the proposed action technically feasible?		
Administrative What level of staff and capabilities necessary to implement the action is available? Political Is there political support to implement and maintain the action? Legal To what degree are proper laws, ordinances, and resolutions in place to implement the action? Economic How much do benefits seem to outweigh the costs? Environment Will the action positively affect the environment (land, water, endangered species)?		



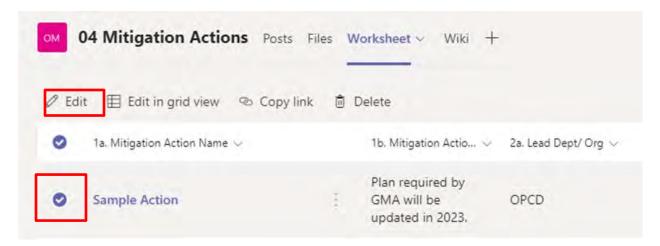
Submitting Mitigation Actions in Worksheet

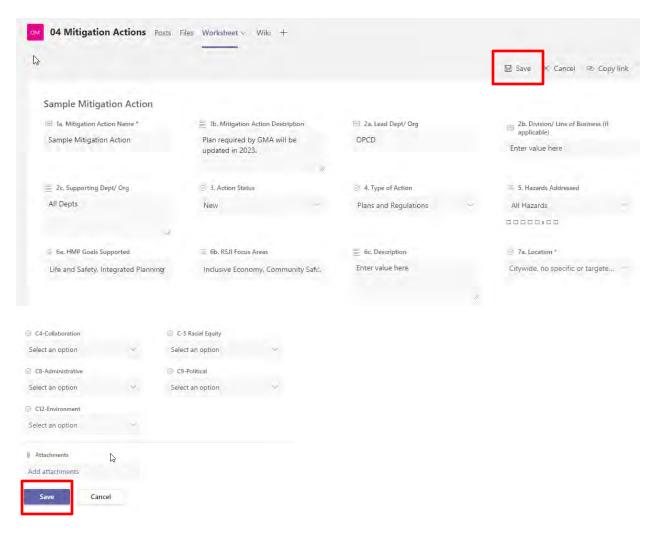
The "Worksheet" is a fill in form created with the List App. It can be used in Teams or Sharepoint environments. The form has a series of fill in fields and pull-down menus to capture all the needed information for each mitigation action. The form is set up so you can enter some information, save, and return to the form later to edit or add information. Make sure to Save before exiting the form. You do not need to save after changing each item on the form.

1. Find Worksheet on Teams



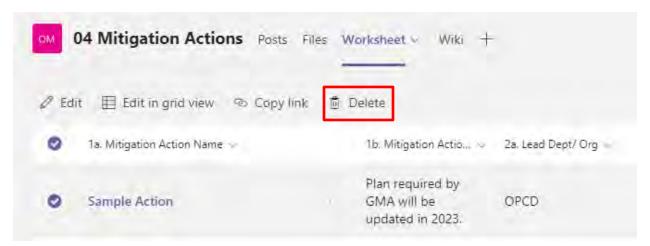
2. **Get familiar with the New Item form.** Click the circle for "Sample Action" and then edit above. Explore what the form looks like and how it works. Make a change. Click Save at the top or the bottom left. Reopen the form to see if your change is still there.



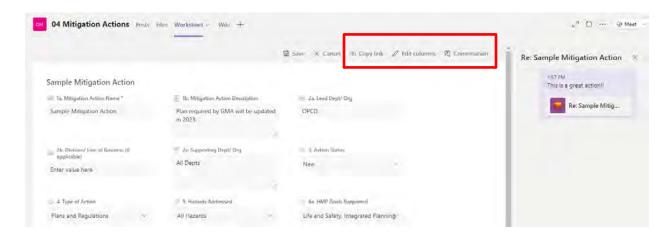


- Enter information for a Mitigation Action. Click "New Item" to enter information for each mitigation action. Don't forget to Save before closing the form. Click "New Item" to enter your next action.
- 4. **Edit or add information for a Mitigation Action**. Find the action you want to edit. Click the circle next to the action and then edit above. The form will open with the information you previously entered. Make changes or additions. Don't forget to Save before closing the form.
- 5. **Delete a Mitigation Action**. Find the action you want to delete. Check the circle next to the action. Choose delete from the menu above.





6. Sharing with Others. You can share links and manage access for each action. There is a chat that can be used to ask questions or gather comments about an action from your colleagues. You can also attach documents to each form that has more detailed information.



A Count Numb	B ber Title	c	D 1b. Milligation Action Description	E 2a. Lead Dept/ Org 2	F b. Division/ Line of Business (if applicable)	G 2c. Supporting 3. Act Dept/ Org Status		5. Hazards Addressed	K 6a. HMP Goals Supported	6b. RSJI Focus Areas	M 6c. Description	N 7a. Location	O 7b. Location Description	7c. Benefit Area	Q R 8. Timeline Sa. Anticipated Cost (if known) Out (if known) 9b. Funding	S T							O AE AF	
2			The Seattle Animal Shelter existing generator was assessed in the aftermath of an extended power outages during the February 2019 winter storm. The generator was determined to have excess																					
			capacity to take on more electrical load. This offers an opportunity to provide backup power for portions of \$5.0° circlad operations (e.g. animal care), above and beyond what the generator power for life-safety requirements. However, during the replacement of the breaker connecting the generator to the buildings electrical system; it was discovered that the current wiring size on the electrical system was inadequate to match the additional load.																					
3 1 FAS1	Seattle år	Animal Shelter Emergency Generator		Administrative	acility Operations	Seattle Animal Shelter and Capital Development New	Non-Structural Measures	Earthquakes;#Power Outages;#Wind Storms;#Snow, Ice and Extreme Cold	Life and Safety,#Property Protection	s Community Safety	SAS handles all lost pets within the Seattle city limits, animal control, pet adoptions and licensing. Spay and Neuter Clinic is onsite. Improve preserve health and welfare of the animals and occupants in the facility.	: Specific Site, provide address below		Seattle Animal Shelter is a one-story building located in the Inter Bay commercial/industrial core. Using excess capacity on the emergency generator can support other critical SAS operational functions including animal care, refrigeration and communications.	3-5 years No	Other	11/2/2020 Mediu	m low Mi	edium Iow	low	Medium Medium	Medium Medium	Medium Medium	low
			FAS facilities house important City services, many of which will be critical in the event of an earthquake. The average building age of the FAS portfolio is 50 years ook and many of these facilities were not built or retrofficties or under modern seizm codes. These facilities are at risk of		, , ,																			
			austaining damage from an acritiquake that could render the building unusable, or an even worse consense of structural failure resulting in July or death of the cougants. Epscalify whereafte are FAS buildings that are not dedictated first responder facilities, yet still directly support emergency poparations. The Selsionic Retroffe scillate improvements propare would be initiated to 1. Hirting consultantly) to perform a preliminary engineering evaluation of the current FAS real property portfolio includings retroff cost estimates. The program would usilist the frictle; Enditelies Index a.								This program would provide City employees greater protection during a seismic occurrence and allow the City to													
			portfolio including retrofit cost estimates. The program would utilize the Critical Facilities indies, a scoring methodology developed in 2013, and funded through the FERAN Per Claister Mitigation Grant. 5. Seismic retrofits will then be prioritized by developing a Master Plan for FAS facilities. This includes coordinating the evaluation and design processor by ynchronizing develor enon-seismic related projects planned to be executed; and, designating immediate occupancy standards for new construction for Crit facilities with mission critical fractions. The outcome of this poraran would be construction for Crit facilities with mission critical fractions. The outcome of this poraran would be serviced to the construction of the Section of th	Eleance and							resume its continuity of operations to serve Seattle residents with safer and more expeditious responses. The seismic program supports growth in Urban Centers and Urban Willage by reducing the risk of downtime to critical City services during a seismic event. WIMBE vendors, construction contractors and subcontractors may be contracted for design	s												
4 2 FAS2	Seismic R	Retrofit Facilities Improvement Program	be to increase the City's seismic resiliency and reduce the risk of downtime to critical City services post-earthquake. Install ShakeAlert technology into express elevators in SMIT to send signal to the automated	Administrative Services C	apital Development	N/A Poten	Assessments and tial (wil Studies	Earthquakes	Life and Safety	Community Safety;#Community Wealth Building;#Community Supports (safety n	contractors and subcontractors may be contracted or design and construction work. This further promotes the City's RSI goal to employ WIMBE businesses on City funded projects.	District or Neighborhood, provide name below	FAS-owned properties	rise office building and occupied by the City of Seattle. The tower is one of the components of the City's downtown civic campus. Built in 1990,	No	Other	11/2/2020 Medius	m High M	edium Medium	High	Low Medium	High Low	Low Medium	Low
. 5. 3 FAS3	install Sha	hakeAlert Technology into Elevators	building emergency system that recall the elevators to be sent to ground floor. This is nonstructural project in spaging through Q. 2021. Antioptate costs to be \$150.000 and funded through operations budget. Where a pplicable, inetallation of \$5sakeAlert will expand to other building beloped MXT when an elevation modernization or similar infrastructure project; initiated. Project Co-spensored by OEM to connect city facilities to the USGS supported earthquake early warning swatem.	Finance and Administrative Services L	osistics and Emergency Management	Facility Operations New	Non-Structural Measures	Earthouakes	Life and Safety,#Critical Infrastructure Protection;#Property Protection	Community Safety	ShakeAlert can provide seconds to minutes of warning about an earthquake before the ground starts shaking. It can provide verbal alerts to people or automated alerts to equipment.	Specific Site, provide address below		the LTY's downtown civic campius. Built in 1990, it is one of the tallest buildings in Seathle, and with a population of nearly 5,000 tenants. It is primary office facility for multiple city departments and include a number of critical city operations.	1-3 years \$ 15,000 Yes	Existing Budge	: 11/2/2020 Mediu	m Low Lo	w Low	Low	Low High	Medium Low	Low High	Low
			Increase community capacity for emergency feeding: In 2021, HSD will develop a 3-5 year strategic feeding plan that will include 1) capacity building to increase food system recilience, 2) continuous improvement from 2019 where storm and 2020 COVID-19 responses, including the identification of key city departmental roles, 3) new standard operating procedures for emergency feeding, 4) new control of the contr																					
6. 4 HSD1	Food Sec.	curity	communications structure and protocol with community agencies for meeting food needs in an emergency; and 5 investments in BIPOC food and meal programs so they can be responsive to their own communities in a hazard. Create 3 6 stand alone Communication Site on Wheels (SDW) intended to provide localized communications in and around as specific venue or larger incident scene. SDW for trunked radio,	Human Services Department F	Food & Nutrition	OSE, DON New	Plans and Regulatio	ns All Hazards	Life and Safety	Community Supports (safety net)	Strengthen community capacity for emergency feeding and collaboration	Citywide, no specific or targeted location		Citywide	1-3 years Anticipated	d .	11/3/2020 Medius	m Low Hij	gh Medium	Medium	Medium High	High Medium	Medium Medium	Medium
7. 5 ПО1	Communi	nication Site on Wheels	cellular, WFI, and Ploint to Priorin Network (Canopy) 3-6 Trailers. Intallally provides emergency communication for first responders eventually could be enablicated to provide public WFI access for residents to allow for incident information and access to city, state, and federal emergency assistance programs.	по т	echnology Infrastructure	SCL, SDOT, SFD, SPD, SPU, FAS, SP&R, HSD, SDCI New	Non-Structural Measures	All Hazards	Life and Safety	Community Safety	Provides access to essential communications during an Event or incident	District or Neighborhood, provide name below	e North, Central, South, West, locations in Seattle	Seattle Area	1-3 years \$ 600,000 No		11/17/2020 High	High Hi	gh High	High	High High	Medium High	Medium High	Medium
8 6 OEM1	L Communi	nity-led Mitigation Projects	Expand partnerships between the City and community based organizations to plan, fund and implement mitigation projects. Incorporate targeted outreach to high priority community service orga.	OEM		DON, OH New	Plans and Regulatio	ns All Hazards	Life and Safety,#Property Protection;#Natural Resource Protection;#Resilent Economy	Inclusive Economy;#Climate Justice;#Community Safety;#Education Opportunity;#Community Supports (safe net);#Community Wealth Building	Projects are TBD and could address any of the RSII focus areas.	Citywide, no specific or targeted location			3-5 years No		Medius	m Med M	edium High	High	High Medium	Medium Medium	Medium Medium	Medium
9 7 OEM2	2 Hazard M		OEM and MWG will undertake an analysis to better integrate equity into the hazard mitigation program. The analysis will use location data (poemic stees, benefit areas, socially rutherable populations) and hazard data to better understand without mitigation actions could improve outcomes for vulnerable and BPOC communities. The analysis will also be used to create equity criteria that could be used to priorities mitigation actions.	OEM		New	Assessments and Studies	All Hazards	Integrated Planning	Climate Justice	This project will add transparency to where mitigation investments are being made, and where benefits would accrue.	Citywide, no specific or targeted location			3-5 years No		Medius	m Low M	edium Medium	Medium	Medium Medium	Medium Medium	Medium Medium	Medium
10 8 OEM3	3 Update H	Home Retrofit Education Program	The materials for this existing education program will be updated to reflect the latest changes in the Project impact plan set and guidance to residents on retrofitting their home and process or obtaining required permits. SOCI is especting a new plan set template to be available some time during 2021.	OEM		SDCI Existin	Education and Awareness	Earthquakes	Life and Safety,#Property Protection	Community Safety		Citywide, no specific or targeted location		Citywide	<1 year No									
11 9 OEM4	4 Ongoing s		Support ongoing efforts to identify additional financial resources, policies, programs, and partnershipts for whose rake posed by WMA. For example, support Ring Courtly's offorts to develop Commercial Property Assessed Clean Energy - Recilience (C-PACER) program that could provide low- cost only eterm financing to property owners to implement URM recirotists. Continue outreach and education efforts to promote the benefits of URM searing retriefs.	OEM		Existin	g Plans and Regulatio	ns Earthquakes	Life and Safety,#Property Protection	community Safety	Chinatown ID and Columbia City have a concentration of URMs and would be disproportionately affected by an earthquake.	Citywide, no specific or targeted location		Citywide	1-3 years No		1/11/2021 High	High Lo	w Medium	Medium	Medium Medium	Medium Low	Medium High	Low
12 10 OPCD:	1 Compreh	hensive Plan Update	WA Growth Management Act requires Seattle to update the comprehensive plan by June 2023. This is a foundational plan that guides Seattle's growth and development. This update will include more data/mapping on hazards and will provide more policy guidance about resilience and climate adaptation.	OPCD L	ong Range Planning	All Depts New	Plans and Regulatio	ns All Hazards	Life and Safety,#Critical Infrastructure Protection;#Property Protection;#Natural Resource Protection;#Resilent Economy,#Integrated Planning	Inclusive Economy;#Community Safety	Plan for future growth in ways that enhances equity and mitigates impacts to BIPOC communities.	Citywide, no specific or targeted location	citywide plan	Citywide	1-3 years \$ 500,000 Anticipated	d	10/8/2020 Low	Low Hi	gh High	High	Medium High	High High	High Low	Medium
											Program, to advance environmental justice and equitable evelopment, prioritizing the needs of those most affected by racial inequities and health disparities. This project, a long- term strategy in the Plan, will mitigate and adapt to flood risk and support the ability of people and businesses to thrive in													
			Duwamish Valley Program (DVP) is an ongoing partnership between the City and the communities of South Park and Georgetoon to address health outcomes, displacement, flooding, and climate change. Two related projects will a								place. The goals of this strategy include: 1. Define Physical Adaptation Responses in partnership with stakeholders, including a suite of adaptation projects that will advance at various scales and timing. Without the project, the flooded private parcel acreage (exclusive of dry high ground and ROW during the 1% annual exceedance probability is expected to	1												
			Wood Johnson Foundation will support planning for a "resilience district" including scenario planning for a se-level rise adaption strategy, research on financial models and equitable investment mechanisms, capacity building, inclusive community engagement, and implementation of "proof-of-concept" projects. A second project will develop designs and an implementation plan for constructing multi-purpose as level protection infrastructure in the South Park neighborhood of the project of the project of the project of the prostructure in the South Park neighborhood or constructing multi-purpose as level protection infrastructure in the South Park neighborhood or constructing the project of the projec								increase from 11 to 63 acres between 2020 and 2070. This area is home to most of the 6,909 jobs in South Park: 2. Co- develop, through community collaborations, agreement on models, standards, guidelines, and data used in adaptation planning to produce (flostible, multi-benefit, policy, resultatory													
			that will protect the area from flooding due to osa level rise, and to help residents and businesses here in place. A street of levees and flood walls would preserve important mutritum industrial businesses, increase community access to the water, create open space, reduce the likelihood of potential future reconstituation of the Volumain New September and street and industrial businesses, increase community access to the water, create open space, reduce the likelihood of potential future reconstituation of the Volumain New September and street and industrial technical flashifty of implementing case level rise protection infrastructum in South Park was documented in the USACSY sport Preliminary Flood Risk Management Study for the Duramich was supported to the Community of the Community			SPR, SPU, SDOT, OH, MO,	Accessments and	Floods;#Excessive Heat:#Infrastructure	Life and Safety,#Critical Infrastructure Protection;#Property Protection;#Resilent	Inclusive Economy;#Climate	and financing solutions: 3. Co-develop a Resilience District that for the Lower Duwamish Valley, that includes a community-led organizations with the capacity to attract and deploy capital at scale, to enter into formal agreements with agencies, and to lead and partner on environmental justice, equitable development and climate change adaptation		Duwamish Valley (primarily in the	•										
13 11 05E1		ish Valley Resilience and Adaptation Planning	River at South Park". Design and construction	OSE/OPCD/DON lead		RWJF New	Studies Infrastructure/Capit projects	Failure ol Earthquakes	Economy,#Integrated Planning Life and Safety,#Critical Infrastructure Protection;#Property Protection;#Resilent Economy	Opportunity;#Community Wealth Buildin	projects and programs. Design and implementation of these A resilent system will support RSJI communities who are more impacted by power outages.	below	neighborhood) Systems Operation Center is located in the Fremont neighborhood.	South Park and Georgetown neighborhoods Systemwide	<1 year \$ 600,000 Yes 1-3 years \$ 2,700,000 Anticipated	Grant	12/2/2020	High Hi	gh High	High	High High	High High	High High	Medium
15 13 SCL2	Seismic R	Review of Vaults & Substations	An update of a 1993 study. 14 substations require retrofit. Average cost is about \$600,000 per substation. Project began in 2014	SCL		Existin	Assessments and Studies Infrastructure/Capit	Earthquakes	Life and Safety;#Critical Infrastructure Protection Life and Safety;#Critical	Community Safety		TBD			1-3 years \$ 200,000 Anticipated	d	12/2/2020							
16 14 SCL3		on Seismic Upgrade	and will take 15 years ot ocmplete. This project will include seismically-designed storage racks for critical parts and supplies, and will secure furniture.	SCL		Existin	Non-Structural Measures	Earthquakes Farthquakes	Infrastructure Protection Life and Safety;#Critical Infrastructure Protection;#Property Protection	Community Safety Community Safety		TBD			3-5 years \$ 8,400,000 Yes	Existing Budge	12/2/2020					I		
18 16 SCL5		npact Recorders at Substations		SCL			Non-Structural Measures	Earthquakes	Life and Safety;#Critical Infrastructure Protection			TBD			1-3 years No		12/2/2020							
_19 17 SCL6	Map Cell	l Towers & Identify Feeders		SCL		Existi	Assessments and g Studies	Earthquakes;#Power Outages;#Snow, Ice and Extreme Cold;#Wind Storms	Critical Infrastructure Protection			TBD			1-3 years Yes		12/2/2020							
			Support ongoing efforts to reduce risks posed by URMs, such as: update the confirmed URM Inventory quarterly (remove demolished buildings and retrofitted buildings); update the confirmed URM Invenentory of City-womed buildings to help identify fature funding opportunities, update the proposed URM retrofit technical standard to reflect changes in national/interiorational building to the confirmed or the confirmed to the conf							Community Safety; PCommunity Wealth		Citywide, no specific or targeted												
20 18 SDC11	Ongoing 9		standards. Seismically retrofit a failing 66-year-old timber and steel retaining wall. The wall is 423 ft in length and 14 feet high. The retaining wall supports a sidewall, the N. Northiske Way roadway, and	ISDCI		Existin	Plans and Regulatio	ns Earthquakes	Life and Safety,#Property Protection	Building;#Community Supports (safety n	ct) Chinatown ID, Ploneer Square and Columbia City,	location	Citywide	[Citywide	3-5 years	Existing Budge	1/14/2021 High	[High Hi	gh [High	High	Medium High	[High Medium	High Medium	Low
21 19 SDOT	1 N. Northi		provides access for the adjacent maritime businesses. Overhead power lines and several busind utilities are dependent on the testinal wall. A replacement retaining wall will sop provide an environmental bunefit by monoing the existing crossored timbers and preventing the flow of adpaths and fill include bullows. The project schedule is 2000-21 planning and development, 2021- 2022 final design and permitting, and construction in 2023.	SDOT R	ioadway Structures Division	SDCI New	Infrastructure/Capit Projects	Earthquakes;#Transportat on incident;#Power all Outages;#Infrastructure Failure	Life and Safety,#Critical Infrastructure Protection;#Property Protection,#Natural Resource Protection		The project will protect Lake Union, secure North Northlake Way, protect the historic maritime businesses adjacent to the project, and protect the traveling public from a retaining wall failure.	Specific Site, provide address below		The geographic area around the project include Lake Union and the Burke-Gilman Trail.	1-3 years \$ 20,000,000 Anticipated	d Grant;#Existing	Budget 11/24/2020 Low	High M	edium High	Low	High High	High High	High High	High
											The project will improve emergency response times by reopening the busiest arterial in the city. And the only route to West South that does not cross a moveable bridge. The													
						WEDGY 15					project's purpose is to protect and restore the West Seattle high bridge. The project will improve Port of Seattle operations, improve commune times for the South and South West Seattle workforce, and improve the accessibility to local businesses. The project will provide a more reliable transit extends for BIDIC communities in Midlio Center, alone the													
			Strengthen and selomically upgrade the diminished structural integrity of the West Seattle Bridge high span. Restore straffic to the West Seattle High Bridge which will improving transit to West Seattle, improve emergency response times, potect the Dusanish water way, and improve Port of			WSDOT, US Coast Guard, the Port of Seattle, Northwest Seaport	Infrastructure/Capit	al Incident;#Infrastructure	Life and Safety,#Critical Infrastructure Protection;#Property Protection;#Resilent	Inclusive Economy;#Climate	system for BIPOC communities in White Center, along the Defridge Avenue corridor, and in the Duwamish Valley. The project will also reduce notice and air pollution caused by the rerouting of thousands of vehicles each day into BIPOC communities. The project can improve the artery of people who ride bikes and walk in BIPOC communities experiencing high traffic volumes from recorded West Seattle bridge traffic.		West Seattle, Harbor Island, South	The West Seattle Peninsula, Harbor Island and South Seattle will benefit directly from this action The city will benefit economically with improved access to the Port of Seattle terminals on Harbor Island and improved access to the fuel farm on Harbor Island the serves the region.										
22 20 SDOT	2 West Seat	attle High Bridge	Spattle terminal operations.	SDOT R	loadway Structures Division	Alliance New	Projects	Failure	Economy,#Integrated Planning	Justice;#Community Safety	high traffic volumes from rerouted West Seattle bridge traffic. SDOT will require significant outside resources to patch damaged arterials post-earthquake. Impassable arterials will slow post-earthquake emergency response life safety and		Seattle	Harbor Island the serves the region.	1-3 years \$ 47,000,000 Anticipated	d Existing Budge	#Grand 11/24/2020 High	High Hi	gh High	High	[High High	High High	High High	High
	Part English	thquake Aerterial Damage Spot Repair Planning and					Education and	Earthquakec#Inforte	Life and Safety,#Critical Infrastructure Protection;#Resilent		sow post-earthquake emergency response interantly and property protection efforts. Additionally, impacasable arterials will impact economic restoration post-earthquake. Conducting a post-earthquake arterial spot repair exercise will identify the additional resources required for arterial restoration and coordination restoration activities across	s												
23 21 SDOT:	3 Exercise	A sheet seed and	SPU. SCL. SPR. WSDOT	SDOT		New	Awareness	e Failure	Economy:#Property Protection		departments.	TBD		citywide	<1 year \$ 80,000 No	Grant	12/10/2020 Medius	m Medium Me	edium High	Low	High High	Medium High	High High	Low

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A B C Count Number Title	D 1b. Misspation Action Description 2a. keed		G H 2c. Supporting 3. Action Dept/ Org Status 4. Type of		K 6a. HMP Goals Supported 6b. RS	L SII Focus Areas	M 6c. Description	N 7a. Location	7b. Location Description		Q R Sa. Anticipated Cost (if known) Sb. Fundament				Y Z oilaboration C-5 Racial Equity (AA AB AC S-Social C7-Technical C8- Administrat	AD AE C9-Political C10-Legal	AF AG C11- C12- Economic Environment
24 22 SOOT4 Bridge Seismic Retrofit	Bridge seismic improvements and bridge structures maintenance. 10 bridges are funded through Move Seattle Levy. 4 bridges are deferred unless other funding is identified.	Roadway Structures	Infrastruc Existing Projects	ture/Capitol Earthquakes;#Infrastructu e Failure	Life and Safety,#Critical infrastructure Protection;#Resilent Economy		The Move Seattle levy funds bridge seismic improvements that will increase the resiliency of Seattle's transportation network and preserve critical infrastructure.	TED	2nd Ave Extension 4th Ave S Main to Airport Way Bridge 15th Ave NW/Leary Way Bridge	,	-3 years \$ 37,260,000 Yes	Bond/Levy	12/1/2020 Medium High	h High High	Medium 8	igh High Medium	High High	High Medium
20 23 50075 Welen Zere	Seattle is experiencing a secondary public health crisis with more people dying or seriously injured from staffs crashes designle fewer whickes on the road during COVID. Vision Zero is Seattle's gian to reduce the huastle of which can pedestion accelerate and to eliminate serious and fatal crashes by 2000. Vision Zero will induce speed limit to 25 MM across Seattle, a provine intigation action to reduce debta in an elimination given limit to 25 MM across Seattle, a provine intigation action to reduce debta in a device callisation. Actionary, Vision Zero will see that device intigation action to reduce debta in a device and provine to reduce which is entire action as a serious serious action interest and interest and provine to reduce which can a debteation action act as interestication yill. Scott will imassure the success of it's integration tactics by the induction of injuries and fastilities and the installation of serious from will fastilities and the installation of serious provinces and Seattless and the installation of some will frastructure outs as speed intil single protected that leaves, and JPL.		SFD, KC, WSDOT Existing Plans and	Regulations All Hazards	Life and Safety#Critical Infrastructure Protection Comm		The Vision Zero program saves lives and reduces serious requires in addition, as the program is implemented across inspired. In addition, as the program is implemented across the program of the program is focused on ending these of significant of the program is focused on ending these of significant of the program is focused on ending these of significant of the program is focused on ending these of significant of the program is focused on ending these of significant of the program is focused on ending these of significant of the program is focused on ending these of significant or the program is focused on ending these of significant or the program is focused on ending these of significant or the program is focused on ending these of significant or the program is focused on ending these of significant or the program is focused on ending these of significant or the program is focused on ending these of significant or the program is focused on ending these of significant or the program is focused on ending these or the program is focused on ending these or the program of the program is focused on ending the program of the program	Citywide, no specific or targeted location		, , ,	-5 years \$ 75,000,000 Yes	Bond/Levy	11/24/2020 High Mee	idium High High	High	igh High High	High High	High Low
25 24 SPL1 Seismic Retrofit of Historic Libraries	A 2015 survey conducted by 50Cl identified the three unreinforced masonry Carnegie buildings as high-risk for damage and loss of life in the event of a major earthquake. The seismic upgrade to each of these landmarked buildings is estimated to take approximately 18 months to complete. SPL		Infrastruc New Projects	ture/Capital Earthquakes	Life and Safety,#Critical Infrastructure Protection;#Property Protection			Specific Site, provide address below	Green Lake 7364 East Green Lake Dr N University 5009 Roosevelt Way NE Columbia 4721 Rainier Ave S,	Green Lake, U District and Columbia City neighborhoods.	-5 years \$ 13,800,000 Yes	Bond/Levy	нур нур	h Medium Medi	ium Medium i	igh High High	High Medium	Medium Low
27 25 SPR1 Imprevements for Clan Air, Cooling Centers	destant's Community centers are critical positif facilities for offering oils and healthy spaces during efforms excited the section of the building environment of the section of the section section of the object section of the object section of the object section of the secti	Planning, Design, and Development Division.	Infraction Infraction	Excessive Heat-Elsnow, Ice and Catrene share/Capitals (finc. smoke) incidents			Scattle has experienced many extreme weather events and recognized the importance of having site places for our valuescable populations to shallen in that have clean at and the have more disputition and their potent and of enrices. Investigating in public buildings to provide safe and healthy whether to increase thank in these populations as valid and the potent and only the provide safe and whether to increase thank in these populations as valid and well being.		Seattle has identified many Equity Areas where economic, health, and social dispartities are greater. The Community Certain Usade is a prioritized for receive the infrastructure improvements to make their more replicant to make their more replicant more replicant to model more legisles to model for their perioritic cardions.	The City of Seattle has many distinct and diverse neighborhoods that are impacted differently by many distinct and the control of the control	5 years Anticop	aned	31/2/2020 High Low	v High Madi	ium. High. 1	ide Halle Male	Marth Mayh	Medium Low
Mitigate impacts to Park Property and Assets Resulting	om Using design and operational strategies, suses and implement dominator management practices	Planning and Development, Parks and	Assessme	Floods;#Water nts and Shortages;#infrastructure	Property Protection;#Natural		Inclusive Economy: any Consultant work could be contracted with BIPCC community; Climate Justice: broadly, this work can bolister resilience of Inadxcape/groperty assets to make sure these assets continue to be accessible and provide ecological services. Individual studies, design, or operational strategies can distinctly assess imposts and identify actions to	Citywide, no specific or targeted	such as Pier 63 downtown, Alki seawalls and shoreline, and other sea level rise actions may include (former) estuary zones such as Parix properties on the Duwanish River, or other saltwater shoreline parks like Golden Gardens Park, Discovery Park, Lincoln Park and	Citywide-park developed and undeveloped								
28 992 Recoding, High Tides and Sea Level Rise	In light of higher surge atom events, and perform study of asawall replacement strategies. 399 199 199 This action consists of providing estence retrofits to a number of buildings within 59% portfolio to meet the safety stratedure, receipting the risk of linguing or down in the event of an earthquake. Each retrofit will be limited meet of bytas or down in the event of an earthquake. Each retrofit will be limited ones as project or subject to a providing set of the safety strategies.	Environment, Facilities Maintenance	SPU Existing Studies Office of Emergency Facilities and Administrative Infrastruct	Failure Failure Eurn/Capitol Earthquakes,#Wind	Life and Safety, Whatural Resource		help overcome historic disparities. Programming within facilities owned by SPR are accessed by diverse user groups, all of whom fibe optomistar in at these facilities do not meet seisnes castedards. Much of the facilities do not meet seisnes castedards. Much of the status is considered to the castedards and all the seisness casted the castedards. Selected the seisness casted the castedards and selected the selected selected the selected selected selected the selected selecte	Jocation	In the state of project need include Pratt Fine Arts Center, Loyal Heights Community Center, and Magnuco Prat Buildings 2	Loyal Heights Community Center is one of Scattle Parts and Riccration's Legac community center is one of Scattle Parts and Riccration's Legac community center Parts and Riccration's Legac community center Balladir. Part in Parts Center Indio Scates Balladir. Part in Parts Center Indio Scates Balladir. Part in Parts Center Indio Scattle by Sall Sand Point, a non-point that provides samily instruction, pagement, and crange by Sall Sand Point. a non-point that provides samily instruction, pagement, and crange Just likely be lessed to this Sand Point Center of Centilinors, with Pagement Des are provided to the Sand Point Center of Sand Riccration.	1 year Yes	Existing Budget	11/10/2020 Low Mee	Medium Medium Medi	l High I	Hedium High Medium	Medium High	High Medium
20 27 SPR3 Seinnic Reindfact of SPR Procesamed Buildines 50 28 SPR4 Milliografion of Protential Damage to ECAs	within the department's Capital Innovement Plan (CIP). Witgelon of potential damage to Environmentally Cotted Area from Some weather and somewhat the Cotted Area from Some weather and somewhat the Cotted Area from S	R depending t and asset	Sentic Paris sed Records Sentic Paris sed Records to Infrastructure processes	Storms. Floody.if. and did dec, dileft as the failure tructure if allure	Protection affrosem Protection. Come Critical Infrastructure protection, office part of protection, o	multi Salery & Sucreti Leconardo	Mitigating adverse land impacts will increase usable space within 578 council parcels thereto providing additional space within 578 council parcels theretop providing additional space for the pacific to use and creatals. The decrease in padential undevelopable bend into traditionally defined parks quotesteally in under well-packed bend into traditionally defined parks quotesteally in under well-packed castons within the City.	Specific Site, provide address below	Date Harre Canyon - In Southback Seattle in a traditionally underseved end of Seattle, Duwarmsh Greenbells - Salar, and Seattle - Salar, and Seattle - Salar, and Seattle - Salar - Sa	The Southern and Northern ends of Scattle traditionally has less formally developed City of Scattle when these areas were annexed. The areas are severely opportunities were annexed. The areas are severely opportunities of programment of the areas are severely opportunities of the areas are severely opportunities of the areas are severely opportunities are opportunities.	5 30,000,000 Anticipal 5 3,000,000 Into	Grant.	ne B 11/13/2020 (Held III)	h Magh Made	Medican	edium rigin Medium	Man Man	ing ing
1) 29 Stores Since Restoration of Coastal and Inland Alexa.	There are approximately 211 acros of forested parktand in need of restoration that are on swerely steep dops (over 6600) that require technical expertise, time and materials beyond the typical size of Genes seates Particurally (2017) retractions activities. Claywide these stopes can be covered to the seates Particurally (2017) retractions activities. Claywide these stopes can be covered to the seates of t	Parks and Environment Division	Finance and Performance Management Natural Performance	Excessive Matchinologiscopy of Matchinologiscopy o	Natural Resource Protection, ILI/le and Safety Whosen'th Protection . Climat	ate Justice &Community Safety	Restoring and reforesting creep hilliddes maintain dope stability. Solid communities again durabn heat, resigner concentration down while habitation concentration downs while habitation solid concentration of more while habitation solid concentrations are solid concentrations and solid concentrations are solid concentrations and solid concentrations are solid concentrations.	Citywide, no specific or targeted location	Focus on severely steep slope area (over 660) on fuerball areas, area (as a severely steep slope area (as a severely sev	Citravide	Iver 5 6000000 No	Other	11/31/2020 Low Half	h Hish Med	ium Medium 1	uh Mish Medium	Medium Hilb	Made Made
Milligate impacts to Park Property and Assets Resulting		Planning and Development, Parks and	Natural S	Water ystem Shortages;#infrastructure			Inclusive Economy: any Consultant work could be contracted with BIPOC community, Climate Justice: broadly, this work can bolster recipience of landacep/property assets to make sure these assets continue to be accessible and provide ecological services. Individual studies, design, or operational strategies can distinctly assess impacts and identify actions to	Citywide, no specific or targeted	Actions such as irrigation, horticultural practices, or water re-	Citywide-parks, developed and undeveloped								
32 30 SPR6 Water Shortage. 31 31 SPU01 Pumo Station Assessments	re-use for non-potable needs where feasible to reduce demand on water supply. SPR Pump stations will be evaluated for flooding and sealevel rise as they are upgraded or replaced. SPU has three current projects with the potential to be impacted by climate change. On these projects SPU is adding or reductine various sestem commonents to improve reliability and increase capacity. SPU	Environment, Facilities Maintenance Drainage and Wastewater	New Protection Assessme New Studies	Earthquakes;#Floods;#Tsunts and nami/Seiche;#Infrastructu		sive Economy,#Climate Justice	help overcome historic disparities.	TBD	use are citywide.	landscapes, riparian corridors.	1 year Yes -3 years \$ 100,000 Yes	Existing Budget;	sona/Levy Low Med 11/1/2020 Low Med	dium IMedium High	Low I	redium High Medium	Medium High	High High Medium Medium
34 32 SPU02 Reservoirs Seismic Upgrade and Rehabilitation	The selantic approads to this choicing water received aspart of an overall inhabilitation project. Establish featured to believe, thereton featured in feature. SPU	Water	Infrastruc New Projects	ture/Capitol Earthquakes		munity Safety	South Park and Georgetown are diverse lower income communities located in Seattle's primary liquefaction zone.		Eastside Reservoir is located in Bellevue; Riverton Reservoir is located in SeaTac	Eastside (Cascade Water Alliance) serves primarily Bellievue, Mercer Island and Kirkland. Riverton serves West Sattle, South Park, Georgetown, Wholesale customers southwest of Seattle such as KCWD #20 and KCWD #125	-5 years \$ 24,000,000 Anticip:	ated Existing Budget	12/2/2020 Medium Higi	tow Low	Medium	ledium High High	High High	Medium Low
35 33 SPU03 Water Pump Station Emergency Generators 25 34 SPU04 Water Tank Seismic Lloarade and Rehabilitation	Augment water pump station emergency generators. 5PU These 1 million-pallon water tranks will be estimically upgraded as part of rehabilitation projects. Maximids Texent raiks and Trenton Standioless. 5PU	Water	New Projects Infrastruc New Proiects	Outages;#Wind Storms ture/Capitol Earthouakes	Critical Infrastructure Protection, Resilent Economy Life and Safety, #Critical Infrastructure Protection, #Resilent Economy Common	munity Safety	South Park and Georgetown are diverse lower income communities located in Seattle's orimary liquefaction zone.	Citywide, no specific or targeted location Maenolia. South Park and Georgetown	Citywide and some regional locations Magnolia, South Park and Georgetown	Citywide and some regional locations The elevated Magnolis tanks serve Magnolia. The Trenton Standplpes tanks project primarily services the South Park and Georgetown neiehborhoods.	-5 years \$ 1,000,000 Anticipa -5 years \$ 23,000,000 Anticipa	ated Existing Budget ated Existing Budget	11/1/2020 Low High	h Low Low	Medium Medium	tedium High High	High High	Medium Low
	Plan will assess impacts of flooding, sea-level rise and seismic events on drainage and wastewater		SDOT, SPR, OPCD, DON, King County, community and private sector	Earthquakes;#Floods;#Lan dslides;#Snow, ice and Extreme Cold;#Tsunami/Seiche;#Po wer	Integrated Planning,#Resilent Economy,#Natural Resource Protection,#Property Protection,#Property		The Shape Our Water Plan will have a positive effect on climate justice by identifying climate resilience investments in Seattle through a process that center's community and racial											
27 35 SRUDS Shape Our Water Interpreted Plan 28 36 SRUDS Revet Wighland Slope Stabilization Presonneters	systems, and identify specific investments to improve resilience over the next 50 years To be considered in 2015. SPU What is the large placement of each of each of the control of the first Trightand. Landfill. The processor was a factor of the control over	Drainage and Wastewater Solid Waste	wadde, usepa New Priester	Regulations Failure ture/Capitol Earthquakes	Infrastructure Protection Climat Life and Safety/#Critical	nte Justice	Seathe firequips a process that center's community and racas equity. Goldy. Protecting the landfill gas extraction system allows SPU to control gas migration to adjacent "Market Rate" housing development.	location Specific Site, provide address below		The community within 1000 feet of the Kent Highlands Landfill at 23076 Milliany Road South Kent Was 9802 Early benefit from the protection of the Landfill Infrastructure 1	3 years Yes	Existing Budget Existing Budget	11/1/2020 Medium Hig8	h High High	High !	tedium High High tedium High High	Medium Medium	High High
39 37 SPU07 Implement flooding and sewer backup orolects	Implement design and construction for prioritized flooding and sewer backup prevention projects in Broadview South Park and Beacon Hill neinborhoods.	Drainage and Wastwater	Infrastruc Existing Projects	ture/Capitol Floods	Property Protection Comm	munity Safety	The projects serve diverse and lower income neighborhoods to address flooding and sewer backup issues.	District or Neighborhood, provide nan below	e Broadview. South Park, Beacon Hill	I. Broadview. South Park. Beacon Hill	nmediate \$ 20,000,000 Anticips	ated Existing Budget	12/2/2020 Low Hish	h Medium Low	High	ich Hich Hich	High High	Medium Low

Mitigation Action Worksheets Ta

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						2.6													C20-4 C24	e-months					
Count	Number		1b. Mitigation Action Description	2a. Lead Dept/ Org	2b. Division/ Line of Business (if applicable)) 2c. Supporting 3. Act Dept/ Org Status	4. Type of Action	5. Hazards Addressed	6a. HMP Goals Supported	6b. RSJI Focus Areas	6c. Description		7b. Location Description	7c. Benefit Area	8. Timeline Cost (if	(known) 9b. Funding Available	9c. Funding Source		ved Damage Ben	efits C4-Collaborat	ion C-5 Racial Equity		7-Technical Administrati		Economic Environment
2				1				1	1					1					1	1	1	1 1			
									L		L														
			Add DWW system capacity and resilience to climate change impacts, in addition to decreasing the impact of polluted runoff to water quality, through funding community-identified green				Infrastructure/Capito	ol le	Property Protection;#Natural Resource Protection;#Integrated	Inclusive Economy;#Climate	Programs center community in how the projects are developed, and offer economic opportunity through design,	Citywide, no specific or targeted													
40 38	SPU08	Green Infrastructure Incentive Program	stormwater infrastructure.	SPU	Drainage and Wastewater	USFS,	Proiects	Floods:#Excessive Heat	Planning	Justice:#Community Wealth Building	construction, and materials supply.	location	1		3-5 years \$ 30	000,000 Yes	Existing Budget	11/1/2020 Low	Medium High	Medium	Medium	Medium M	ledium Medium	Medium Medium	High High
						Washington			Life and Safety;#Critical																
						State University.			Infrastructure Protection;#Property Protection:#Natural Resource																
			Study potential wildfire impacts on the water supply watersheds, identify mitigaiton actions and			University of		Fires;#Infrastructure	Protection;#Resilent				The Cedar and Tolt watersheds												
41 39	SPU09	Wildfire Strategic Plan	implement the plan.	SPU	Water	Idaho New	Protection	Failure;#Water Shortages	Economy;#Integrated Planning		T	Cedar and Tolt watersheds	located in the Cascades.	Seattle and wholesale customers (outside Seattle)	<1 year	Yes	Existing Budget	11/1/2020 Medium	High High	Low	Medium	High M	ledium Medium	Medium High	High High
									Life and Safety;#Critical																
									Infrastructure Protection;#Property Protection;#Natural Resource																
42 40	SPU10	Cascade Dam Proiect	The design phase for a project that would replace existing dam with one that meets current seismic	rou.			Assessments and	Earthquakes;#Floods;#War	Protection;#Resilent Economy.#Integrated Planning			Near the town of Covington	Lake Younes	Whole water system service area, 1.5 million	35		Foliation Burdons	43 (30 (3030 High	111-0		Made			Madina IIIa	
42 40	3P010	Cascade Dani Protect	Stations.	Isro	water	new	Studies	Jer Snortakes	•		·	Near the town or Covington	Lake Yourses	peoble.	15-0 years	perocipated	Existing budget	[12/20/2020 [High	Inter Inte	Iwiediam	Medidiii	Tulkii Tui	gn Iragn	[Medicin] High	Ings Ings
			This 50-year plan that identifies a series of potential projects to improve seismic resilience in the						Life and Safety;#Critical Infrastructure Protection;#Property				Regional-wide (water system												
			water system. Projects include investments in critical infrastructure and facilities and emergency				Infrastructure/Capito		Protection;#Resilent		Loss of water supply will have potentially greater impacts on		serves wholesale customers	Whole water system service area, 1.5 million											
43 41	SPU11	Water System Seismic Plan	response capabilities.	SPU	Water	New	Projects	Earthquakes	Economy,#Integrated Planning	Community Safety	poorer communities.	location	outside Seattle)	people.	Immediate	No	Other	12/1/2020 High	High High	Medium	Medium	High Hi	igh High	Medium High	High High
								Earthquakes;#Floods;#Lan dslides:#Water	Life and Safety;#Critical																
								Shortages;#Wind	Infrastructure Protection;#Property Protection;#Natural Resource																
44 42	SPU12	Landsburg Flood Passage Project	This project is going to be designed to allow flood waters and large woody debris to pass around the dam to prevent dam failure.	SPII	Water	New	Infrastructure/Capito Projects	ol Storms,#Infrastructure Failure	Protection;#Resilent Economy;#Integrated Planning			Cedar River near Issaguah	Landsburg Facility	Regional-wide (water system serves wholesale customers outside Seattle)	3.5 years	Anticipated	Evicting Budget	12/1/2020 High	High High	Medium	Medium	High Hi	ieh Hieh	High High	High High
		,			,	, , , , , , , , , , , , , , , , , , , ,	1	,,	1			,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,,,	,	,,	, , , , , , , , , , , , , , , , , , , ,	,		1		1	1.00
			The project will restore and reconnect the floodplain in the North Branch of Thornton Creek in a 0.3 acre parcel. The site area includes approximately 200 linear ft of stream, "21,000 sq. ft of potential																						
			floodplain habitat, and ~19,000 sq. ft of upland habitat. Restoration of the site will create multiple			SPR, Mid																			
			benefits including: decreased downstream flooding, improved water quality, reduced erosion and sedimentation, improved creek habitat for fish and aquatic life, greater system resiliency due to			Sound Fisheries			Life and Safety;#Property																
45 43	SPU13	Lake City Floodplain Park	lower stream velocities, easier maintenance and future replacement of the undersized NE 125th culvert, and increased public access to greenspace.	cou.	Declarate and Manhamatan	Enhancement Group New	Natural System Protection	Floods	Protection;#Natural Resource Protection;#Integrated Planning	Climate Institute MC	The provide will provide more greenspace in the underserve community of Lake City.	d 2318 NE 125th St	Six block west of Lake City, next Thornton Creek.	to Lake City area	43	A-Malandari	Grant#Existing Budge	1/4/2021 1	Madicine (Date	1000	10-4		ledium Medium	High Medium	I am
43 43	3P013	take City Floodplain Park	curver, and increased public access to greenspace.	370	Drainage and Wastewater	Gloop New	Protection	FIGURES	Protection; writegrated Planning	Climate Justice;#Community Salety	community of Lake City.	2316 NE 123(II 3t	Indiritori Creek	Latte City area	1-5 years	Anticipated	Grant, HEXISTING BUDGE	1/4/2021 tow	Medium Higi	ngo	nign	Medium M	ledium Medium	High Medidini	LOW HIGH
			Cedar Falls power service upgrade project will improve the quality, capacity, and redundancy of					Earthquakes;#Fires;#Powe																	
46 44	SPU14	Cedar Falls power service upgrade project	electrical service to the Cedar Falls campus, Masonry Dam, and Overflow Dike. Phase I of a potential two-phase project or provide permanent power to the Morse Lake emergency pump plant project.		SPU / Water	SCL New	Natural System Protection	r Outages;#Water Shortages:#Wind Storms	Critical Infrastructure Protection			Cedar Watershed	Cedar River Watershed	Whole regional water system. 1.5 million people.	1-3 years S 12	.000.000 Yes	Existing Budget	Medium	High High	Medium	Medium	Medium Hi	igh Medium	High Medium	High Medium
								Floods;#Infrastructure	Critical Infrastructure		*	***************************************		,											
47 45	SPU15	Comprehensive Peak Flow Program	Comprehensive peak flow program to replace undersized culverts in the Cedar River Watershed to account for 100-year flood events and near-term climate change.	SPU	Water	New	Infrastructure/Capito Projects	or Failure;#Landslides;#Earth quakes	Protection;#Natural Resource Protection			Cedar and Tolt watersheds	Cedar and Tolt Watersheds	Whole water system. 1.5 million people.	3-5 years \$ 1	500,000 Anticipated	Existing Budget	Low	Medium Med	lium Medium	Medium	Medium Hi	igh High	High High	High High
			Study and design of a project to increase the storage capacity for the Chester Morse Reservoir						Critical Infrastructure Protection:#Property																
			during drought conditions and also providing new opportunities to evacuate the reservoir more				Infrastructure/Capito	al le	Protection;#Natural Resource			1		I	1 1	1		1 1							
48 46	SPU16	Storage Capacity for the Chester Morse Reservoir	quickly in flood conditions in the fall and winter.	SPU	Water	SCL New	Projects	Floods;#Water Shortages	Protection Critical Infrastructure		1	Cedar River Watershed	Cedar River Watershed	1.5 million people. Whole water system.	3-5 years	Anticipated		Medium	Medium High	Medium	Medium	High Hi	igh High	High High	High Medium
								Floods;#Earthquakes;#Lan	Protection;#Property																
49 47	SPU17	Design and repair/replace of the Tolt Dam spillway	Design and repair/replace of the Tolt Dam spillway used to release water from the Tolt Reservoir in flood and other emergency conditions (i.e. earthquake).	SPU	Water	SCL New			Protection;#Natural Resource Protection			Tolt Watershed	Tolt Watershed	Whole water system service area, 1.5 million people.	3-5 years	Yes	Existing Budget	High	High High	Medium	Medium	High Hi	igh High	High High	High High

3