

1	**DRAFT - Community Resilience Building Risk Matrix - DRAFT**	Town of Aquinnah	www.CommunityResilienceBuilding.org								
2											
3	H-M-L priority for action over the Short or Long term (and Ongoing)					Top Priority Hazards (tornado, floods, wildfire, hurricanes, earthquake, drought, sea level rise, heat wave, etc.)					
4										Priority	Time
5	V = Vulnerability S = Strength										
6											
7	Features	Location	Ownership	V or S	Feature Type (Infrastructural, Societal, Environmental)	Storms (Hurricane / Blizzards / NorEasters / Surge / Wind / Sea Level Rise)	Sea Surface Temperature Rise & Ocean Acidification	Precipitation Extremes (Rainfall, Flooding / Drought, Wildfire)	Temperature Extremes (of Ambient Air)	H - M - L	Short Long Ongoing
8	Roads & Culverts	Quitsa / Harriph's Bridge, Lobsterville, Moshup, Lighthouse, Herring Creek, West Basin, East Pasture Rd-State Rd	State, Town, Private	V	I, E	Nourish Lobsterville Beach; continue tree trimming; move wires underground; engage engineer to evaluate State Rd vulnerabilities & solutions; study drainage systems (culverts) to then issue recommendations; assess culverts for potential upgrades; secure technical / transportation planner to draft a Plan that would improve Emergency response; enlist coastal scientist to help develop Shoreline Management Plan identifying areas vulnerable to inundation and erosion, along with a suite of actions including Nature Based Solutions, managed retreat, and hard infrastructure needs where negative impacts can be minimized		Maintain culverts; improve culverts near Moshup-Old South Rd & East Pasture-State Rd; study drainage systems (culverts) to then issue recommendations; promote fuel removal adjacent to dwellings & implement Wildfire Management Plan for Moshup and Clay Pit Rds; research dry hydrant capacity for Moshup; enlist coastal scientist to help develop Shoreline Management Plan identifying areas vulnerable to flooding and erosion and suite of actions including Nature Based Solutions, managed retreat, and hard infrastructure needs where negative impacts can be minimized		M, H	O, S, L
9	Steamship Authority	all docks	public / private	V	I	Develop Emergency Plan for scenario where infrastructure is wiped out; BOS apply pressure to SSA to plan for SLR & Climate Disruption				M	O
10	Channel - Menemsha Pond / Harbor Access	West Basin / Channel	public	S / V	I	Pressure Feds to dredge given Harbor of Refuge status; improve channel management; secure air transport, medical boat				L	L
11	Utilities - Grid - Power supply	across town / island-wide	Eversource & some private ownership amongst residents	V, S (at Circle)	I, S	Develop micro grid / PV & battery backup at town-owned buildings; explore prospects of micro-grid with more extensive coverage across town (Phase 1: Feasibility Study to understand potential of solar, tidal & wind power); bury lines near Moshup; research loop / redundancy options; prune selective locations; encourage energy efficiency; distribute more radios, satellite phones; assess prospects for a communication tower at the Lighthouse & town dump; develop Emergency Plan for scenario where infrastructure is wiped out; secure complementary generator for DAS; improve logistics planning to keep equipment safe		Prune select locations; encourage energy efficiency; develop Emergency Plan for scenario where infrastructure is wiped out; secure complementary generator for DAS; improve logistics planning to keep equipment safe	Encourage energy efficiency	M, H	S, O, L
12	Communications	across town	private (AT&T, Verizon)	V	I, S	Distribute more radios, satellite phones; assess prospects for a communication tower at the Lighthouse & town dump; develop micro grid / PV & battery backup at town-owned buildings; explore prospects of micro-grid with more extensive coverage across town (Phase 1: Feasibility Study to understand potential of solar, tidal & wind power); develop Emergency Plan for scenario where infrastructure is wiped out; secure complementary generator for DAS; Better logistics planning to keep equipment safe				H, M	S, O
13	Access / Approaches to Aquinnah	Harriph's Bridge / West Basin-Lobsterville	State owns bridge / Town owns roads, Tribe owns lands	S, V	I	Raise Harriph's Creek bridge; develop Emergency Plan for scenario where infrastructure is wiped out; assess & research alternatives for access road out of Aquinnah (Chilmark-Aquinnah collaboration); enlist coastal scientist to help develop Shoreline Management Plan identifying areas vulnerable to inundation and erosion, along with a suite of actions including Nature Based Solutions, managed retreat and hard infrastructure needs where negative impacts can be minimized		Assess & research alternatives for access road out of Aquinnah (Chilmark-Aquinnah collaboration); enlist coastal scientist to help develop Shoreline Management Plan identifying areas vulnerable to flooding and erosion and suite of actions including Nature Based Solutions, managed retreat and hard infrastructure needs where negative impacts can be minimized		M	O
14	Tribe's Natural Resources Dep't. (includes Water Testing Facility)	along Herring Creek & other Tribal Land	Tribe	S	I, S	Revisit partnership opportunities, options, resources				L, M	S
15	Restrictive Zoning Bylaws / DCPCs	across town		S	I	Assess vulnerability in potential advancement areas (owing to SLR) to determine if boundaries should be redefined; Preserve setbacks with changing conditions		Develop Land Management Plan to allow for clearing that helps mitigates fires & includes habitat considerations to reduce climate change stressors to wildlife		M, H	L, O
16	Town Hall / Police Station		Town	S	I	Increase capacity of Town Hall for emergency response / daytime sheltering purposes (develop micro-grid; upgrade bathrooms to meet universal needs; improve functionality of space occupied by the Police)		Upgrade bathrooms to meet universal needs; increase functionality of space occupied by the Police; increase capacity of Town Hall for emergency response purposes; develop micro-grid		H	L
17	Supply Chain - food, etc	SSA (VH harbor, OB harbor), Harriph's Bridge		V	S	Develop Emergency Plan for scenario where infrastructure is wiped out; BOS apply pressure to SSA to plan for SLR & Climate Disruption				M	L
18	Tourism / Economy	beaches, island ponds, cliffs / shops	private / public	V	S	Extend bike paths to reduce vehicular use				M	O
19	Cultural Heritage	Cliffs, Lighthouse, low-lying archeological sites, bogs	Tribe / Town	V	S	Explore additional opportunities for joint (Town-Tribe) planning				M, H	L, O

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20	Home values / Property tax base	coastal zones	private	S / V	S	Develop Coastal Land Use Management Plan / strategies to reduce risk to exposed residences		Develop Land Management Plan to allow for clearing that helps mitigate fires & includes habitat considerations to reduce climate change stressors to wildlife		M	O
21	Rural character	town-wide		S	S	Extend bike paths to reduce vehicular use				L	O
22	Emergency response / CERT / Island-wide Fire Dept Response	Aquinnah with special focus on DogFish Bar (OxCart Rd)		S / V	S	Increase ranks of trained town responders & training opportunities for existing responders; strengthen CERT advanced scenario planning; disseminate preparedness materials; assess prospects for a communication tower at the Lighthouse & town dump		Increase ranks of trained town responders & training opportunities for existing responders; strengthen CERT advanced scenario planning; disseminate preparedness materials; assess prospects for a communication tower at the Lighthouse & town dump		H	S, O
23	Tribe - Town Partnership / Relations	Aquinnah		S / V	S	Conduct feasibility study of mediation potential				M	O
24	Cliffs - (Circle & its Economy)	westernmost part of Aquinnah	Tribe / Town	S / V	S, I, E	Protect, preserve & assess; develop wetlands management plan to mitigate erosion; enlist hydrologist and drill & assess pilot infiltration wells in attempt to better control erosion; support Aquinnah Cliffs Committee & their stormwater management recommendations		Protect, preserve & assess; develop wetlands management plan to mitigate erosion; enlist hydrologist and drill & assess pilot infiltration wells in attempt to better control erosion; support Aquinnah Cliffs Committee & their stormwater management recommendations		L	O, S
25	Seasonal Population Boom	across town		S / V	S	strengthen public education & improve communication re storms & emergencies				M	L
26	Aging Population	across town		V	S	Explore mixed use zoning for subsidized housing & food forest behind town hall (for a better myriad of downsizing options)		Explore mixed use zoning for subsidized housing & food forest behind town hall (for a better myriad of downsizing options)	Educate about Cape Light (and perhaps Mass Saves as well) incentives for heat pumps, etc; Explore mixed use zoning for subsidized housing & food forest behind town hall (for a better myriad of downsizing options)	M	O
27	Socially Isolated Residents	across town		V	S	Strengthen CERT planning; harden the grid; Explore mixed use zoning for subsidized housing & food forest behind town hall (for a better myriad of downsizing options)		Strengthen CERT planning; harden the grid; Explore mixed use zoning for subsidized housing & food forest behind town hall (for a better myriad of downsizing options)		M	S
28	(Coastal) Wetlands, swamps, salt marsh	Bogs, Common Lands, Oxcart Rd, behind dunes, corner of Old South Rd & Moshup Trail, other areas adjacent to interior shoreline	private, mixed	S / V	E	Develop Management Plan for Wetland Resources		Assess Wetlands issue / odor on Oxcart Rd; develop Management Plan for Wetland Resources		H	S
29	Ponds / Surface Water	Menemsha, Squibnocket, freshwater ponds	Town owned (Chilmark & Aquinnah)	S / V	E, S	Develop Pond Management Plan	Develop Pond Management Plan; assess & (re)establish eel grass, food system; assess water exchange issues in ponds & bays; investigate ways to expand local aquaculture; explore incentives & promote programs to upgrade septic systems to de-nitrifying / Innovative Alternatives			M, H	S, L, O
30	Drinking / Well Water / Aquifers / Groundwater access	Cooks Spring water table, other sites (check with Board of Health)	Public & Private	S / V (in low areas)	E, S	Identify natural / artisanal wells; pilot infiltration wells and transfer water to aquifer; develop solar back up plan for well pumps (cistern); protect Aquinnah spring, including development of regulations to this effect		Identify natural / artisanal wells; pilot infiltration wells and transfer water to aquifer; develop solar back up plan for well pumps (cistern); protect Aquinnah spring, including development of regulations to this effect		H, M	S, O
31	Beaches	shoreline	public & private	V, S	E	Enlist coastal scientist to help develop Shoreline Management Plan identifying areas vulnerable to inundation and erosion, along with a suite of actions including Nature Based Solutions, managed retreat and hard infrastructure needs where negative impacts can be minimized; nourish Lobsterville Beach; research breakwaters at Lobsterville		Enlist coastal scientist to help develop Shoreline Management Plan identifying areas vulnerable to flooding and erosion and suite of actions including Nature Based Solutions, managed retreat and hard infrastructure needs where negative impacts can be minimized		M	L
32	Fisheries		Ponds & V. Sound	V / S	E	Research new areas suitable for shellfish habitat & kelp farming				M	L, O
33	Dogfish Bar	NW Aquinnah (north of Oxcart Rd)		V	E	Develop Evacuation Plan; issue Reminder Maps; establish point of contact for evacuation scenarios		Develop Evacuation Plan; issue Reminder Maps		L	L
34	Habitat shifts - Vector Borne Diseases			V	E			Improve deer control measures; prescribed burns for undergrowth; communications outreach to educate property owners on how to mitigate mosquito proliferation		H	S
35	Herring Creek	between State Road and Menemsha Pond	Tribe?	V	E	Dredge & improve built structures		Dredge & improve built structures		M	O
36	Wild Food Sustainability	Cranberry Bogs, shellfish beds, beach plums, deer, fish, seaweed, etc		S / V	E		Explore incentives & promote programs to upgrade septic systems to de-nitrifying / Innovative Alternatives so that pond water quality remains healthy; monitor blooms; improve monitoring & management			M	O