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Oyster Farming Resilience Index: An Oyster
Farm Self-Assessment. MASGP-22-059

SHELLFISH FARMING RESILIENCE INDEX



An Shellfish Farm Self-Assessment

Understanding How Prepared
Your Shellfish Farm is for a Disaster



"On the road to shellfish farm resilience"



Scan for link to index.

Methodology

How was the OFRI Developed?

The OFRI was developed with broad participation from industry leaders. The development team coordinated with an industry steering committee to identify measures of resilience, or indicators. Each of the indicators are written in the form of a “yes” or “no” question. Using those indicators, the OFRI was organized into seven categories: business planning, marketing, disaster preparedness planning, workforce, monitoring of water and oysters, regulatory knowledge and resource access and knowledge. The OFRI was then pilot tested with farmers in Alabama and Mississippi, and modifications to the OFRI were made before finalizing it.

Business Planning

Marketing

Disaster Preparedness Planning

Workforce

Monitoring of Water and Oysters

Regulatory Knowledge

Resource Access and Knowledge

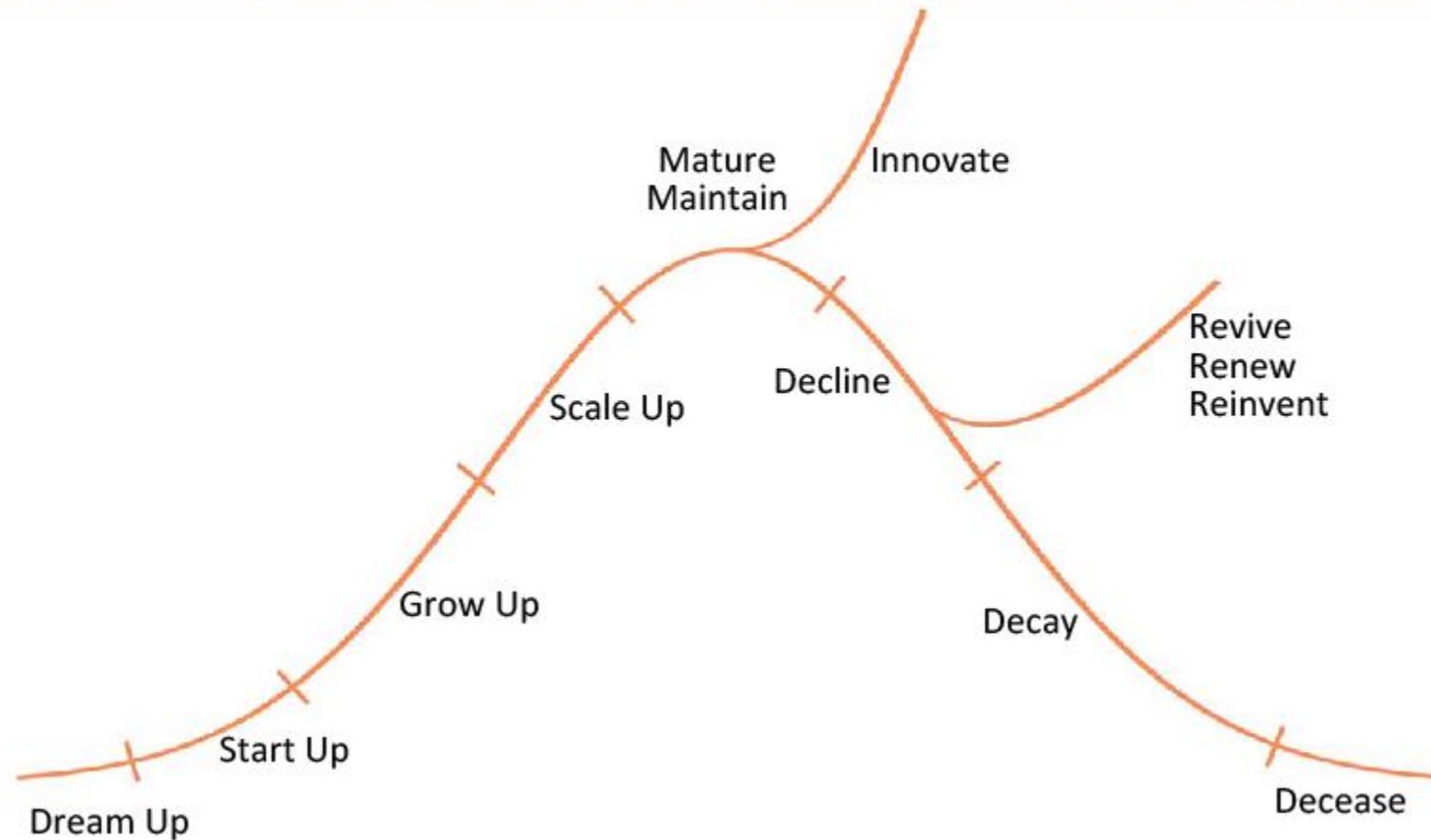
Business Planning

Section 1: Does your business include the following information?

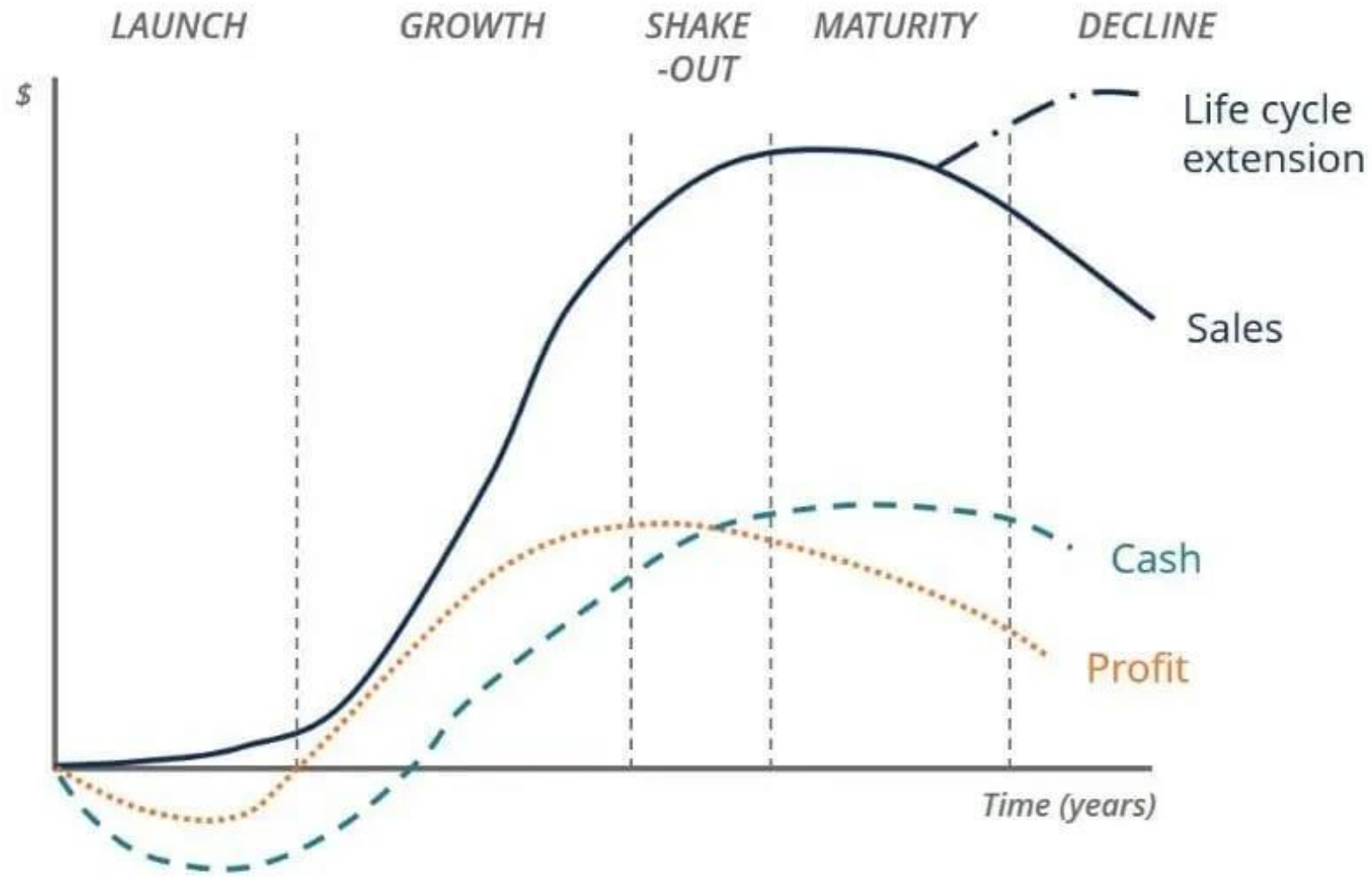
Check Yes or No for the 33 questions in this section.

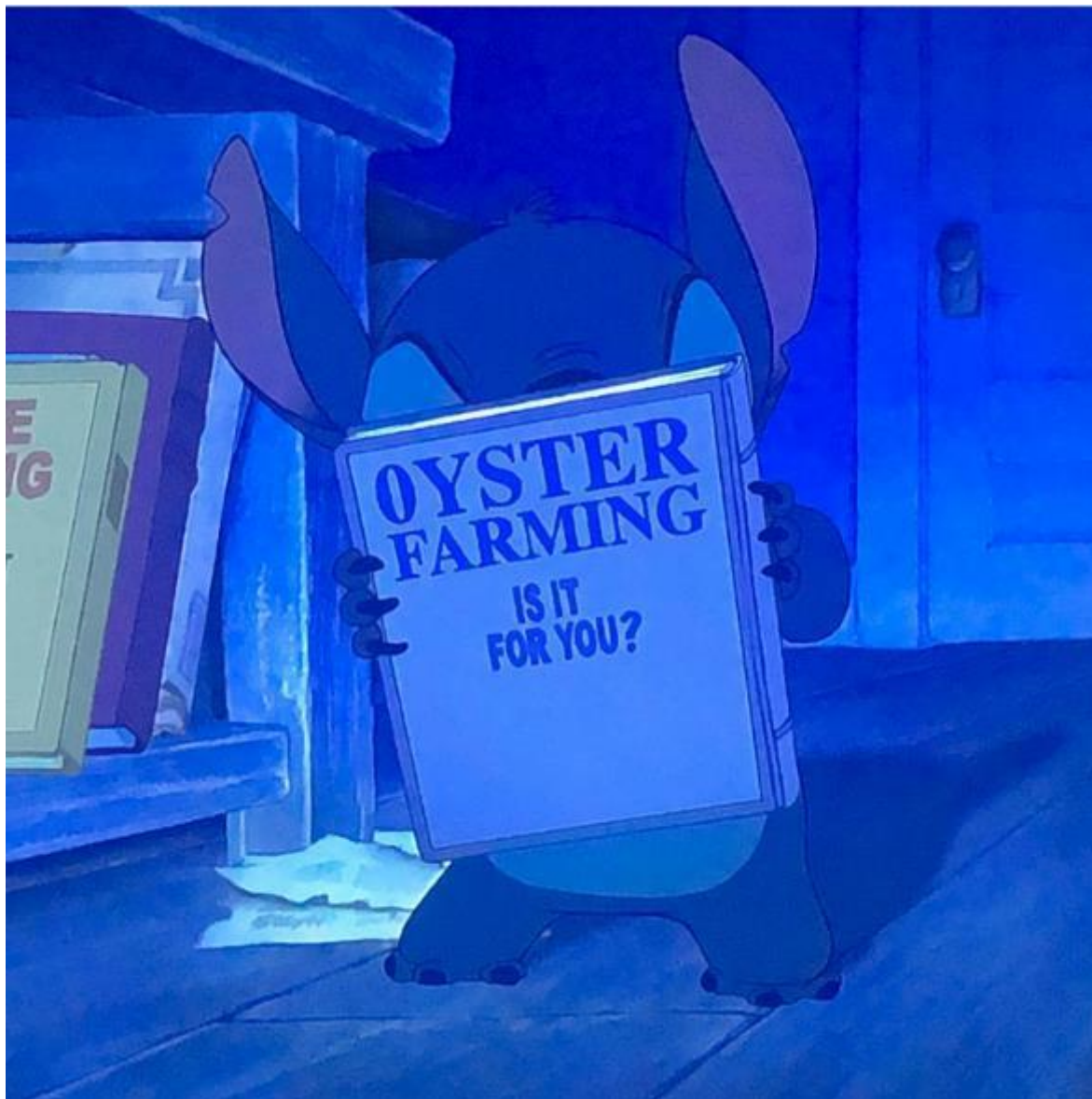
Section 1: Business Planning	Yes	No
1. Do you have a written business plan containing at least the following:		
a. Mission statement and goals		
b. Company overview (legal structure, products or services, location, management, insurance)		
c. Industry analysis (differentiates business functions/activities including seed availability/access to product)		
d. Do you know how much it costs for you to grow an oyster to market size and the anticipated amount you will be paid for an oyster that reaches market size?		
e. Financial plan (cash flow statement, three-year income projection, sources and uses of funds, summary of financial needs, financial statements and profits/losses)		

Business Life Cycle



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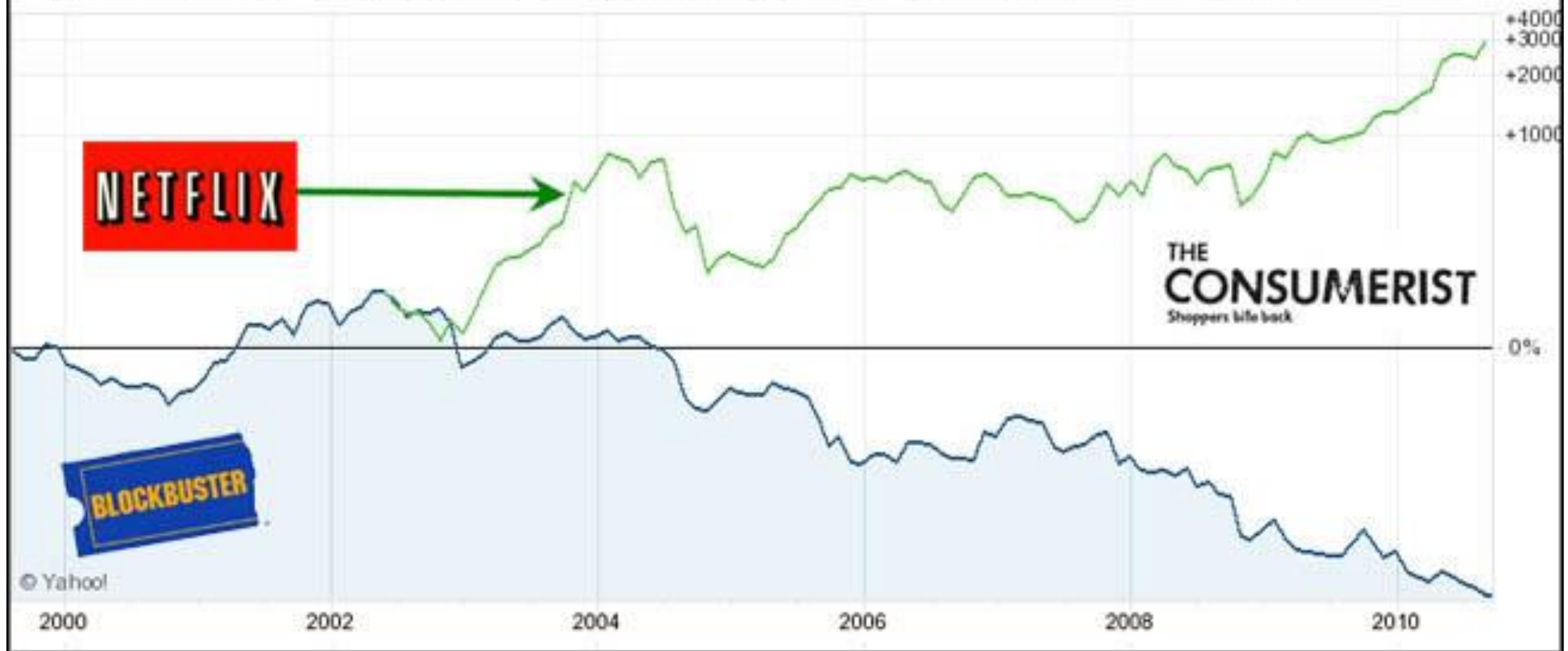




Lilo & Stitch is a 2002 American animated science fiction comedy-drama film produced by Walt Disney Feature Animation and released by Walt Disney Pictures.



EVERYTHING YOU NEED TO KNOW ABOUT BLOCKBUSTER'S BANKRUPTCY





auburn al



Auburn, Alabama



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Budget?



Off Bottom Oyster Farming Gear Types



How many seed do you see?



Marketing

Section 2: Does your business have the following marketing plans, procedures and strategies?

Check Yes or No for the 27 questions in this section.

Section 2: Marketing	Yes	No
13. Do you have a written marketing plan as part of your business plan containing at least the following:		
a. Company analysis (strengths, weaknesses, opportunities and threats)		
b. Customer analysis (customer demographics, target markets, needs of target customers)		
c. Situation analysis (short-, mid- and long-term competition, growth, price elasticity, market availability, potential expansion)		
d. Goals		
e. Strategies		
f. Tactics		
g. Timeline		

Oyster Grown For Raw Consumption for The Premium Half Shell Market





Disaster Preparedness Planning

Section 3: Does your business have the following disaster preparedness plan in place?

Check Yes or No for the 16 questions in this section.

Section 3: Disaster Preparedness Plan	Yes	No
26. Have key personnel in your business had firsthand experience with disaster recovery during the last 10 years?		
27. Do you have a written disaster preparedness plan that includes at least the following:		
a. Evacuation, re-entry and shelter-in-place plan		
b. Continuity of operations plan (e.g. essential personnel/services/equipment, alternate reporting locations, reopening, critical records storage)		
c. Agreements and contracts with suppliers and contractors for critical operations (e.g. anchors, pilings, generators, debris removal and cleanup services)		
d. Mobile communications ready for use in the event of a disaster (e.g. satellite phones, Garmin inReach, two-way radios, phone apps)		
e. Emergency supplies (e.g. fuel, ice, batteries)		
f. Internal (employee) communications plan including for non-English speaking employees (e.g. established phone numbers for staff to call for information, schedule for staff to return to work)		
g. Communications plan for media, customers and the public (e.g. predetermined messages and messaging channels)		
h. Gear recovery strategy		

MICHAEL HISTORY

OCT. 7-11, 2018

DEPRESSION T.S. HURRICANE CAT. 3+

OCT. 11: WEAKENS
TO TROPICAL STORM

OCT. 10: LANDFALL NEAR
MEXICO BEACH, FL AS
160 MPH CATEGORY 5

OCT. 10: INTENSIFIES TO
CATEGORY 4

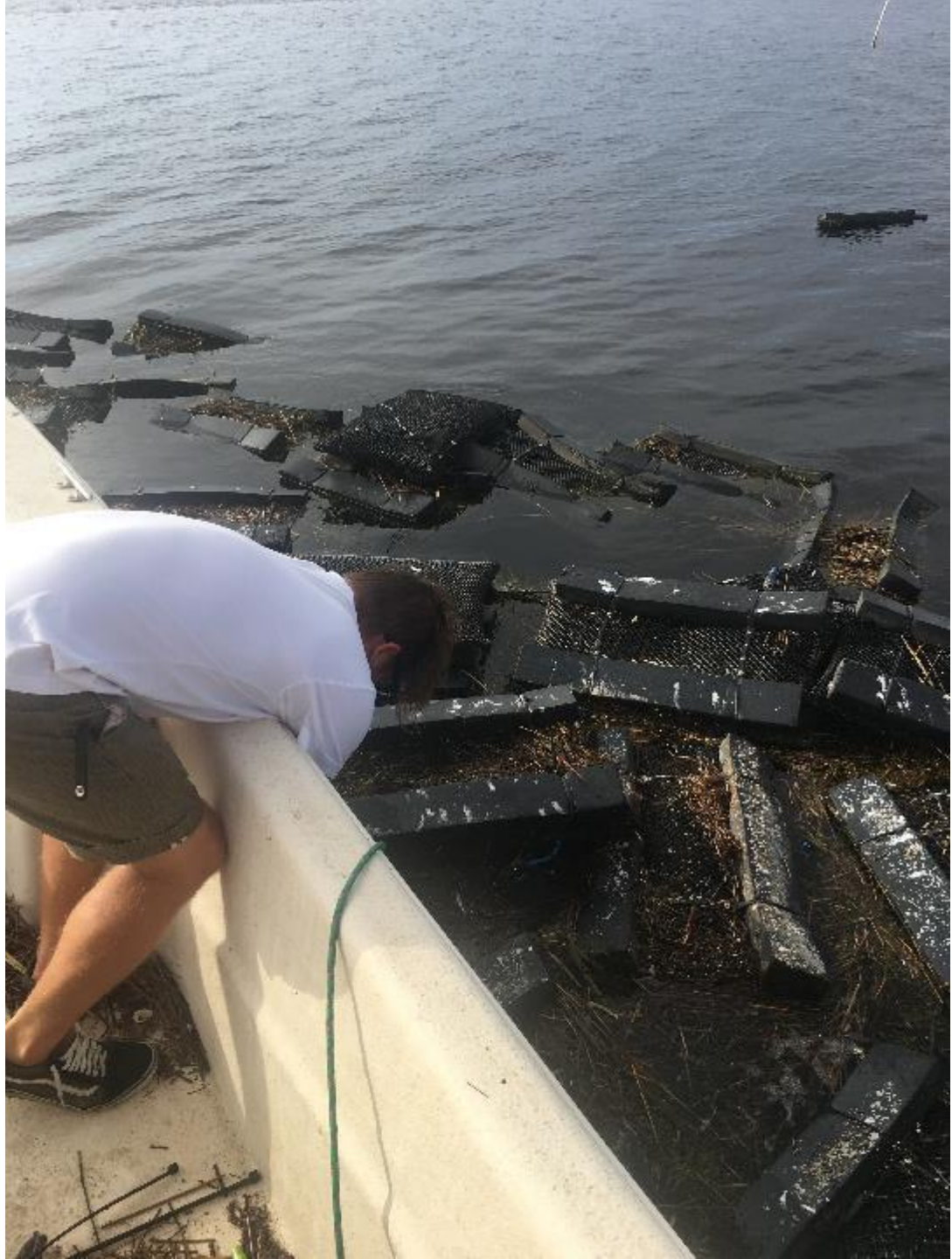
OCT. 9: STRENGTHENS TO
CATEGORY 3

OCT. 7: BECOMES
TROPICAL STORM
MICHAEL

OCT. 8: MICHAEL
BECOMES A
HURRICANE

OCT. 7: T.D. 14
FORMS









Workforce

Section 4: Workforce	Yes	No
37. Do you have employees who are cross-trained in tasks outside of their normal job duties to assist with disaster recovery?		
38. Are you part of a social network that connects you to other farmers whom you can call on for support if needed (e.g. shared labor pool to assist in relocating oysters)?		
39. Do you provide training for new or current employees that includes the following:		
a. Farm operations and management		
b. Mentoring or farmer-to-farmer exchange program		
c. Health and safety training specific to your business (e.g. first aid/CPR training, food safety, OSHA, mental health services)		
40. Do you have enough adequately trained staff for normal operations under regular working conditions (including disruption of work due to absences of staff)?		
41. Do your employees have adequate wrap-around services (e.g. affordable housing, transportation, child care)?		
42. Do you provide employee incentives to assist with retention (e.g. bonuses, flexible hours, discounted oyster purchases, housing stipends, health insurance, retirement contributions, accommodating class schedules)?		
Total number of Yes and No answers:		

Additional Comments or areas where you would like to learn more.





Photo Credit Keller Oystermom, inc.

Monitoring of Water and Oysters

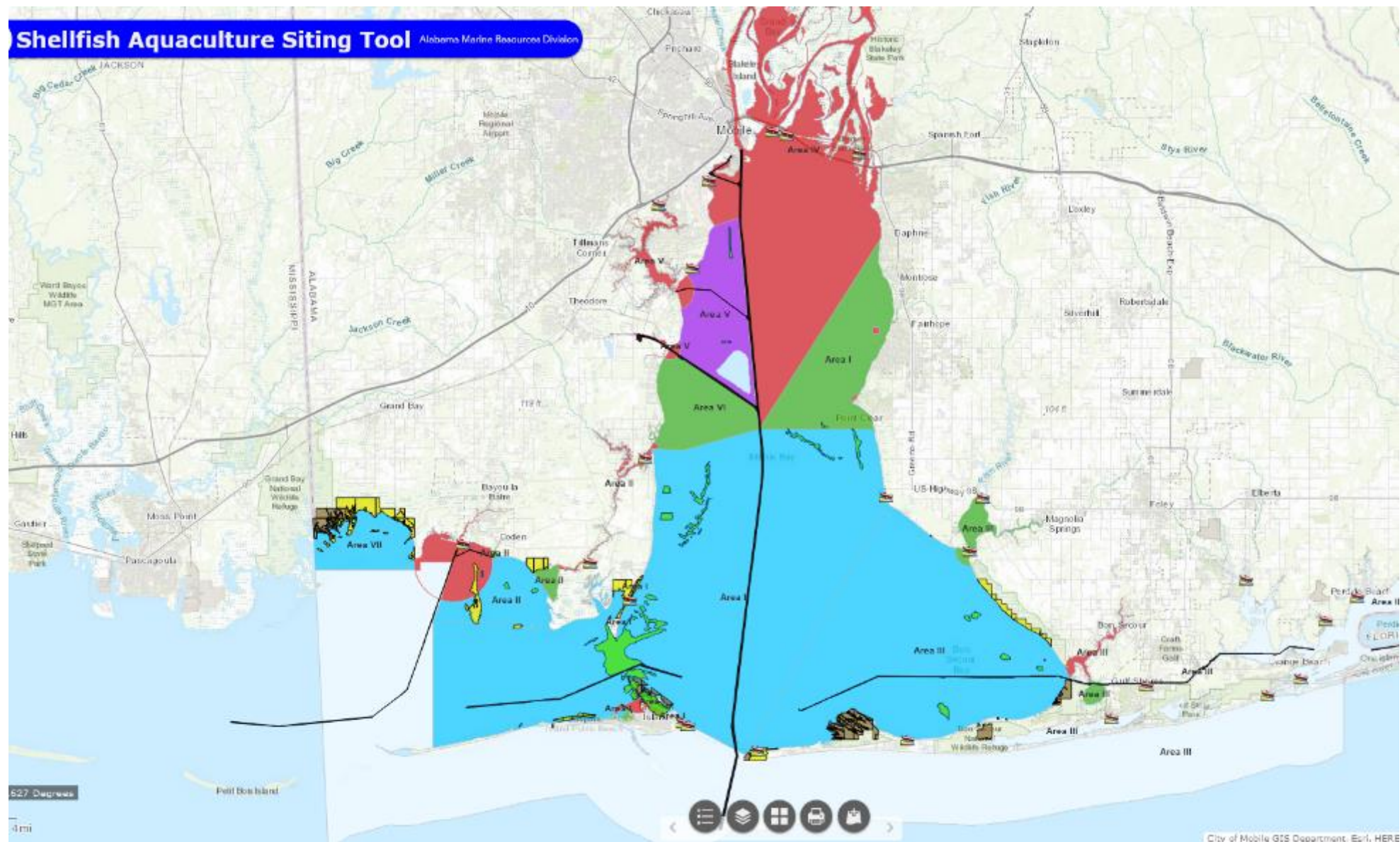
Section 5 Does your business track water quality, quantity and monitoring issues in local waters?

Check Yes or No for the 21 questions in this section.

Section 5: Monitoring of Water and Oysters	Yes	No
43. Do you monitor growth rates of your oysters at different sizes and times of the year?		
44. Do you monitor the following:		
a. Salinity		
b. Water temperature		
c. Dissolved oxygen		
d. Turbidity		
e. Air temperature		
f. Local rainfall		
g. Pathogens (e.g. viruses or bacteria)		
h. Toxins (e.g. harmful algae blooms)		
i. Metals (e.g. cadmium, lead, mercury, arsenic)		
45. Do you currently share your monitoring data or would you be willing to share it with state agencies to aid in informing regulatory closures and reopenings?		
46. Do you receive adequate advance notice from state or local government agencies if water quality-related closures are about to occur?		
47. Over the last 12 months, has your farm remained open without regulatory closures (e.g. closures due to freshwater inflow, harmful algae blooms, pathogens, stormwater overflow)?		
48. Are you prepared to act in response to potential closures due to the following:		
a. Freshwater inflow		
b. Harmful algae blooms		
c. Sewage overflows		
d. Storms		
e. Chemical or oil spills		
f. Dredging		
49. Do you have access to local facilities for more advanced testing of toxins and pathogens?		
50. Do you utilize wet storage of oysters to hold oysters in anticipation of water quality closures?		
Total number of Yes and No answers:		

Shellfish Aquaculture Siting Tool

Alabama Marine Resources Division



Regulatory Knowledge

Section 6: Does your business monitor and participate in regulatory activities?
Check Yes or No for the 11 questions in this section.

Section 6: Regulatory Knowledge	Yes	No
51. Do you renew your permits or licenses as required and on time?		
52. Do you know the permitting requirements and timeline to obtain a permit to expand your farm (e.g. U.S. Army Corps of Engineers Nationwide Permit 48)?		
53. Do you know who to contact to obtain the latest regulations related to your farm?		
54. Do you know the oyster management policies on a local level (e.g. cause for closures, reopening processes)?		
55. Are you involved in the Interstate Shellfish Sanitation Conference (ISSC)?		
56. Do you know how the ISSC National Shellfish Sanitation Program Guide is managed?		
57. Do you know how the classification of oyster growing waters can change?		
58. Do you know the regulations for moving your oysters to other locations (relaying) if the need arises?		
59. If you have a license to process, does your farm have a Hazard Analysis and Critical Control Point (HACCP) plan?		
60. Do you use your knowledge or experience to influence oyster farming policies (e.g. public comment, calling your regulatory office)?		
61. Do you know how to learn of planned restoration projects and do you provide input or comment on restoration projects that could impact your farm?		
Total number of Yes and No answers:		

Resource Access and Knowledge

Section 7: Does your business access additional resources regularly?
Check Yes or No for the 4 questions in this section.

Section 7: Resource Access and Knowledge	Yes	No
62. Do you participate in any oyster industry communities of practice that bring together members of the industry to solve problems?		
63. Are you aware of the latest farming science and technology developments that are being used by the industry?		
64. Do you participate in resource sustainability activities on your farm (e.g. habitat conservation and restoration, erosion prevention, stormwater management, nutrient reduction, recycling, local sourcing, energy efficiencies)?		
65. Are you a member of any local, regional or national professional industry associations?		
Total number of Yes and No answers:		

Use the row labeled “Total Number of Yes or No Answers” from Sections 1-7 to complete the following table.

Sections 1-7	Number of Yes answers	Your Assessment of Your Farm’s Resilience (Low, Medium or High)	Comments
Example using the Workforce section	4/7	Medium	Staff training would increase our farm’s resilience in the workforce section.
Section 1: Business Planning (33 yes or no questions)			
Section 2: Marketing (27 yes or no questions)			
Section 3: Disaster Preparedness Planning (16 yes or no questions)			
Section 4: Workforce (10 yes or no questions)			
Section 5: Monitoring of Water and Oysters (21 yes or no questions)			
Section 6: Regulatory Knowledge (11 yes or no questions)			
Section 7: Resource Access and Knowledge (4 yes or no questions)			

Rating and Interpreting Your Results

Resilience Index: The Oyster Farming Resilience Index is an index using indicators to gauge your oyster farm's ability to return to an acceptable level of operations after a disaster. After completing the scoring table of this self-assessment, your resilience index can be categorized as LOW, MEDIUM, or HIGH in each section.

LOW Resilience Index. A low score in any section may indicate that your farm should pay specific attention to that section and should make efforts to address the areas of low ratings. It could also indicate that it would take more time to return to normal operations than would a higher resilience rating.

MEDIUM Resilience Index. A medium score in any section indicates that more work could be done to improve your areas of low ratings.

HIGH Resilience Index. A high score in any section indicates that your farm is prepared for disasters (natural, economic and human caused) for that section. A high resilience rating does not guarantee that your farm will not suffer major losses during a catastrophic disaster.

Supporting Materials

The following resources are provided to assist you in building a more resilient business. You will find templates for creating a business plan, visualization tools to help you assess your risk and best practices to guide your future long-term planning efforts. In addition to these resources, check with your local and regional chambers of commerce and destination marketing organizations.

U.S. Small Business Administration

<http://www.sba.gov/writing-business-plan>

The U.S. Small Business Administration (SBA) is an independent agency of the federal government to aid, counsel, assist, and protect the interests of small business concerns, to preserve free competitive enterprise and to maintain and strengthen the overall economy of our nation. The SBA helps Americans start, build, and grow businesses, through an extensive network of field offices and partnerships with public and private organizations.

- Alabama Small Business Development Center:
www.asbdc.org
- Mississippi Small Business Development Center:
www.mssbdc.org

Alabama Oyster Aquaculture

- <https://alaquaculture.com>



Thank You!

