ATTACHMENT 2: ABBREVIATED RISK ANALYSIS

Abbreviated Risk Analysis

Project (less than $40M): **Pawcatuck River Coastal Storm Damage Reduction Feasibili** **Alternative: Non-Structural**

Project Development Stage/Alternative: **Feasibility (Alternatives)**

Risk Category: **Moderate Risk: Typical Project Construction Type** **Meeting Date: 12/14/2015**

Total Estimated Construction Contract Cost = **$ 36,005,537**

	CWWBS	Feature of Work	Contract Cost		% Contingency	$ Contingency	Total
	01 LANDS AND DAMAGES	Real Estate	$ 3,540,000		10.00%	$ 354,000	$ 3,894,000
1	19 BUILDINGS, GROUNDS, AND UTILITIES	Excavation	$ 2,125,966		25.85%	$ 549,659	$ 2,675,625
2	19 BUILDINGS, GROUNDS, AND UTILITIES	Raising	$ 9,661,674		25.85%	$ 2,497,981	$ 12,159,655
3	19 BUILDINGS, GROUNDS, AND UTILITIES	Foundation Work	$ 10,496,588		25.85%	$ 2,713,844	$ 13,210,432
4	19 BUILDINGS, GROUNDS, AND UTILITIES	Utilities	$ 3,923,791		25.85%	$ 1,014,478	$ 4,938,269
5	19 BUILDINGS, GROUNDS, AND UTILITIES	Carpentry	$ 5,779,429		25.85%	$ 1,494,244	$ 7,273,673
6	19 BUILDINGS, GROUNDS, AND UTILITIES	Site Restoration	$ 4,018,089		25.85%	$ 1,038,858	$ 5,056,947
7			$ -		0.00%	$ -	$ -
8			$ -		0.00%	$ -	$ -
9			$ -		0.00%	$ -	$ -
10			$ -		0.00%	$ -	$ -
11			$ -		0.00%	$ -	$ -
12	All Other	Remaining Construction Items	$ -	*0.0%*	0.00%	$ -	$ -
13	30 PLANNING, ENGINEERING, AND DESIGN	Planning, Engineering, & Design	$ 3,240,498		26.75%	$ 866,702	$ 4,107,201
14	31 CONSTRUCTION MANAGEMENT	Construction Management	$ 3,960,609		35.62%	$ 1,410,728	$ 5,371,337
XX	FIXED DOLLAR RISK ADD (EQUALLY DISPERSED TO ALL, MUST INCLUDE JUSTIFICATION SEE BELOW)					$ -	

Totals					
Real Estate	$ 3,540,000	10.00%	$ 354,000	$	3,894,000.00
Total Construction Estimate	$ 36,005,537	25.85%	$ 9,309,063	$	45,314,600
Total Planning, Engineering & Design	$ 3,240,498	26.75%	$ 866,702	$	4,107,201
Total Construction Management	$ 3,960,609	35.62%	$ 1,410,728	$	5,371,337
Total	**$ 46,746,644**	**25.54%**	**$ 11,940,493**	**$**	**58,687,137**
			Base	**50%**	**80%**
	Range Estimate ($000's)		$46,747k	$53,911k	$58,687k

* 50% based on base is at 5% CL.

Fixed Dollar Risk Add: (Allows for additional risk to be added to the risk analsyis. Must include justification. Does not allocate to Real Estate.	

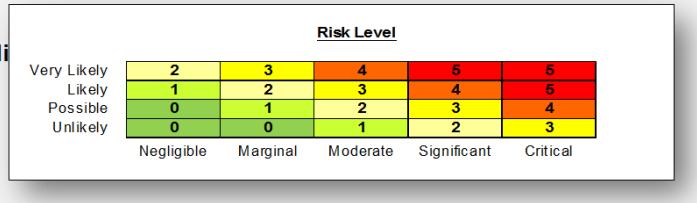
Pawcatuck River Coastal Storm Damage Reduction Feasibility Study Non-Structural
Feasibility (Alternatives)
Abbreviated Risk Analysis

Risk Evaluation

WBS	Potential Risk Areas	Project Scope Growth	Acquisition Strategy	Construction Elements	Quantities for Current Scope	Specialty Fabrication or Equipment	Cost Estimate Assumptions	External Project Risks	Cost in Thousands
01 LANDS AND DAMAGES	**Real Estate**								$3,540,000
19 BUILDINGS, GROUNDS, AND UTILITIES	**Excavation**	**0**	**2**	**3**	**1**	**0**	**2**	**1**	$2,126
19 BUILDINGS, GROUNDS, AND UTILITIES	Raising	**0**	**2**	**3**	**1**	**0**	**2**	**1**	$9,662
19 BUILDINGS, GROUNDS, AND UTILITIES	Foundation Work	**0**	**2**	**3**	**1**	**0**	**2**	**1**	$10,497
19 BUILDINGS, GROUNDS, AND UTILITIES	Utilities	**0**	**2**	**3**	**1**	**0**	**2**	**1**	$3,924
19 BUILDINGS, GROUNDS, AND UTILITIES	Carpentry	**0**	**2**	**3**	**1**	**0**	**2**	**1**	$5,779
19 BUILDINGS, GROUNDS, AND UTILITIES	Site Restoration	**0**	**2**	**3**	**1**	**0**	**2**	**1**	$4,018
0	**0**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0
0	**0**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0
0	**0**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0
0	**0**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0
0	**0**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$0
All Other	Remaining Construction Items	**0**	**0**	**0**	**0**	**0**	**0**	**0**	$0
30 PLANNING, ENGINEERING, AND DESIGN	Planning, Engineering, & Design	**3**	**0**	**0**	**0**	**0**	**1**	**2**	$3,240
31 CONSTRUCTION MANAGEMENT	Construction Management	**3**	**1**	**3**	**0**	**0**	**1**	**2**	$3,961
									$43,207
Risk		$ 960	$ 1,482	$ 5,782	$ 656	$ -	$ 1,639	$ 1,068	**$11,586**
Fixed Dollar Risk Allocation		$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$0**
	Risk	$ 960	$ 1,482	$ 5,782	$ 656	$ -	$ 1,639	$ 1,068	**$11,586**
								Total	**$54,793**

Pawcatuck River Coastal Storm Damage Reduction Feasibili

Feasibility (Alternatives)
Abbreviated Risk Analysis
Meeting Date: 14-Dec-15



Risk Register

Risk Element	Feature of Work	Concerns	PDT Discussions & Conclusions (Include logic & justification for choice of Likelihood & Impact)	Impact	Likelihood	Risk Level
Project Scope Growth				**Maximum Project Growth**		**75%**
PS-1	Excavation	No concerns.	There are no concerns regarding scope growth for each feature of work for the non-strucutral/raising alternative(s). The work is being done on individual structures so the number of structures can increase based on elevation criteria but for each structure there is only so much excavation, raising, foundation work, utilities, carpentry, and site restoration that can be done.	Negligible	Unlikely	0
PS-2	Raising	No concerns.	There are no concerns regarding scope growth for each feature of work for the non-strucutral/raising alternative(s). The work is being done on individual structures so the number of structures can increase based on elevation criteria but for each structure there is only so much excavation, raising, foundation work, utilities, carpentry, and site restoration that can be done.	Negligible	Unlikely	0
PS-3	Foundation Work	No concerns.	There are no concerns regarding scope growth for each feature of work for the non-strucutral/raising alternative(s). The work is being done on individual structures so the number of structures can increase based on elevation criteria but for each structure there is only so much excavation, raising, foundation work, utilities, carpentry, and site restoration that can be done.	Negligible	Unlikely	0
PS-4	Utilities	No concerns.	There are no concerns regarding scope growth for each feature of work for the non-strucutral/raising alternative(s). The work is being done on individual structures so the number of structures can increase based on elevation criteria but for each structure there is only so much excavation, raising, foundation work, utilities, carpentry, and site restoration that can be done.	Negligible	Unlikely	0
PS-5	Carpentry	No concerns.	There are no concerns regarding scope growth for each feature of work for the non-strucutral/raising alternative(s). The work is being done on individual structures so the number of structures can increase based on elevation criteria but for each structure there is only so much excavation, raising, foundation work, utilities, carpentry, and site restoration that can be done.	Negligible	Possible	0
PS-6	Site Restoration	No concerns.	There are no concerns regarding scope growth for each feature of work for the non-strucutral/raising alternative(s). The work is being done on individual structures so the number of structures can increase based on elevation criteria but for each structure there is only so much excavation, raising, foundation work, utilities, carpentry, and site restoration that can be done.	Negligible	Possible	0

PS-12	Remaining Construction Items	No concerns.	N/A	Negligible	Unlikely	0
PS-13	Planning, Engineering, & Design	Concerns expressed over the scope of PED; the number of structures raised will have an impact on PED depending on how the design is completed (i.e. design-build, typical design(s) based on assumed existing conditions, etc.)	The actual means/methods of design for the non-structural alternative is unknown at this time. It is likely there could be moderate impacts if the number of structures to be raised increases in the future.	Moderate	Likely	3
PS-14	Construction Management	Concerns expressed over the scope of PED; the number of structures raised will have an impact on PED depending on how the design is completed (i.e. design-build, typical design(s) based on assumed existing conditions, etc.)	The actual means/methods of S&A for the non-structural alternative is unknown at this time. It is likely there could be moderate impacts if the number of structures to be raised increases in the future.	Moderate	Likely	3
Acquisition Strategy				**Maximum Project Growth**		**30%**
AS-1	Excavation	Concern expressed over contractor type, subs required, bid competition, and adequate bid schedule	Due to the large scale of the project, acquisition is not expected to be small business or 8a. Based on bid/construction history, New England has sufficient general contractors with the ability to perform work successfully (also the proximity to NY opens up competition to larger pool of contractors). Project is anticipated to have multiple contracts (currently assuming 5) to deal with the large number of structures to be raised. The large number of structures to be raised has the ability to tie up general contractor resources in the area. It is possible there could be moderate impacts based on the acquisition strategy.	Moderate	Possible	2
AS-2	Raising	Concern expressed over contractor type, subs required, bid competition, and adequate bid schedule	Due to the large scale of the project, acquisition is not expected to be small business or 8a. Based on bid/construction history, New England has sufficient general contractors with the ability to perform work successfully (also the proximity to NY opens up competition to larger pool of contractors). Project is anticipated to have multiple contracts (currently assuming 5) to deal with the large number of structures to be raised. The large number of structures to be raised has the ability to tie up general contractor resources in the area. It is possible there could be moderate impacts based on the acquisition strategy.	Moderate	Possible	2
AS-3	Foundation Work	Concern expressed over contractor type, subs required, bid competition, and adequate bid schedule	Due to the large scale of the project, acquisition is not expected to be small business or 8a. Based on bid/construction history, New England has sufficient general contractors with the ability to perform work successfully (also the proximity to NY opens up competition to larger pool of contractors). Project is anticipated to have multiple contracts (currently assuming 5) to deal with the large number of structures to be raised. The large number of structures to be raised has the ability to tie up general contractor resources in the area. It is possible there could be moderate impacts based on the acquisition strategy.	Moderate	Possible	2

AS-4	Utilities	Concern expressed over contractor type, subs required, bid competition, and adequate bid schedule	Due to the large scale of the project, acquisition is not expected to be small business or 8a. Based on bid/construction history, New England has sufficient general contractors with the ability to perform work successfully (also the proximity to NY opens up competition to larger pool of contractors). Project is anticipated to have multiple contracts (currently assuming 5) to deal with the large number of structures to be raised. The large number of structures to be raised has the ability to tie up general contractor resources in the area. It is possible there could be moderate impacts based on the acquisition strategy.	Moderate	Possible	**2**
AS-5	Carpentry	Concern expressed over contractor type, subs required, bid competition, and adequate bid schedule	Due to the large scale of the project, acquisition is not expected to be small business or 8a. Based on bid/construction history, New England has sufficient general contractors with the ability to perform work successfully (also the proximity to NY opens up competition to larger pool of contractors). Project is anticipated to have multiple contracts (currently assuming 5) to deal with the large number of structures to be raised. The large number of structures to be raised has the ability to tie up general contractor resources in the area. It is possible there could be moderate impacts based on the acquisition strategy.	Moderate	Possible	**2**
AS-6	Site Restoration	Concern expressed over contractor type, subs required, bid competition, and adequate bid schedule	Due to the large scale of the project, acquisition is not expected to be small business or 8a. Based on bid/construction history, New England has sufficient general contractors with the ability to perform work successfully (also the proximity to NY opens up competition to larger pool of contractors). Project is anticipated to have multiple contracts (currently assuming 5) to deal with the large number of structures to be raised. The large number of structures to be raised has the ability to tie up general contractor resources in the area. It is possible there could be moderate impacts based on the acquisition strategy.	Moderate	Possible	**2**
AS-12	Remaining Construction Items	No concerns.	N/A	Negligible	Unlikely	**0**
AS-13	Planning, Engineering, & Design	No concerns.	N/A	Negligible	Unlikely	**0**
AS-14	Construction Management	Concern expressed over contractor type, subs required, bid competition, and adequate bid schedule	Due to the large scale of the project, acquisition is not expected to be small business or 8a. Based on bid/construction history, New England has sufficient general contractors with the ability to perform work successfully. Project could have multiple contracts to deal with the large number of structures to be raised. It is possible there could be marginal impacts based on the acquisition strategy.	Marginal	Possible	**1**
Construction Elements					**Maximum Project Growth**	**25%**

CE-1	Excavation	Concern expressed over site access, laydown areas, standoff distance to other structures/residences as well as existing condition of framing and foundation and water table.	Site access from laydown areas may pose a risk as the contractor(s) proceed with work. It will require coordination and planning to avoid stockpiling material outside laydown areas, which are limited in size and location. Spacing between structures is, for the most part, not an issue. It is yet to be determined if any restricted work periods will be enforced by the Town or other entities for work in residential areas. There is likely to be issues with at least some structures as far as the existing framing and/or foundations as well as water table issues.	Moderate	Likely	**3**
CE-2	Raising	Concern expressed over site access, laydown areas, standoff distance to other structures/residences as well as existing condition of framing and foundation and water table.	Site access from laydown areas may pose a risk as the contractor(s) proceed with work. It will require coordination and planning to avoid stockpiling material outside laydown areas, which are limited in size and location. Spacing between structures is, for the most part, not an issue. It is yet to be determined if any restricted work periods will be enforced by the Town or other entities for work in residential areas. There is likely to be issues with at least some structures as far as the existing framing and/or foundations as well as water table issues.	Moderate	Likely	**3**
CE-3	Foundation Work	Concern expressed over site access, laydown areas, standoff distance to other structures/residences as well as existing condition of framing and foundation and water table.	Site access from laydown areas may pose a risk as the contractor(s) proceed with work. It will require coordination and planning to avoid stockpiling material outside laydown areas, which are limited in size and location. Spacing between structures is, for the most part, not an issue. It is yet to be determined if any restricted work periods will be enforced by the Town or other entities for work in residential areas. There is likely to be issues with at least some structures as far as the existing framing and/or foundations as well as water table issues.	Moderate	Likely	**3**
CE-4	Utilities	Concern expressed over site access, laydown areas, standoff distance to other structures/residences as well as existing condition of framing and foundation and water table.	Site access from laydown areas may pose a risk as the contractor(s) proceed with work. It will require coordination and planning to avoid stockpiling material outside laydown areas, which are limited in size and location. Spacing between structures is, for the most part, not an issue. It is yet to be determined if any restricted work periods will be enforced by the Town or other entities for work in residential areas. There is likely to be issues with at least some structures as far as the existing framing and/or foundations as well as water table issues.	Moderate	Likely	**3**
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CE-6	Site Restoration	Concern expressed over site access, laydown areas, standoff distance to other structures/residences as well as existing condition of framing and foundation and water table.	Site access from laydown areas may pose a risk as the contractor(s) proceed with work. It will require coordination and planning to avoid stockpiling material outside laydown areas, which are limited in size and location. Spacing between structures is, for the most part, not an issue. It is yet to be determined if any restricted work periods will be enforced by the Town or other entities for work in residential areas. There is likely to be issues with at least some structures as far as the existing framing and/or foundations as well as water table issues.	Moderate	Likely	3
CE-12	Remaining Construction Items	No concerns.	N/A	Negligible	Unlikely	0
CE-13	Planning, Engineering, & Design	No concerns.	N/A	Negligible	Unlikely	0
CE-14	Construction Management	Concern expressed over site access, laydown areas, standoff distance to other structures/residences as well as existing condition of framing and foundation and water table.	Site access from laydown areas may pose a risk as the contractor(s) proceed with work. It will require coordination and planning to avoid stockpiling material outside laydown areas, which are limited in size and location. Spacing between structures is, for the most part, not an issue. It is yet to be determined if any restricted work periods will be enforced by the Town or other entities for work in residential areas. There is likely to be issues with at least some structures as far as the existing framing and/or foundations as well as water table issues.	Moderate	Likely	3
Quantities for Current Scope				**Maximum Project Growth**		**20%**
Q-1	Excavation	Concern expressed that each in individual structure will have it's own quantities. No measurements have been made to approximate quantities.	Quantities have been assumed for each feature of work based on conversations with contractors actively performing this type of work. It is possible the quantities will increase but the impact will be marginal since there is a conservative quantity included in the estimate.	Marginal	Possible	1
Q-2	Raising	Concern expressed that each in individual structure will have it's own quantities. No measurements have been made to approximate quantities.	Quantities have been assumed for each feature of work based on conversations with contractors actively performing this type of work. It is possible the quantities will increase but the impact will be marginal since there is a conservative quantity included in the estimate.	Marginal	Possible	1
Q-3	Foundation Work	Concern expressed that each in individual structure will have it's own quantities. No measurements have been made to approximate quantities.	Quantities have been assumed for each feature of work based on conversations with contractors actively performing this type of work. It is possible the quantities will increase but the impact will be marginal since there is a conservative quantity included in the estimate.	Marginal	Possible	1
Q-4	Utilities	Concern expressed that each in individual structure will have it's own quantities. No measurements have been made to approximate quantities.	Quantities have been assumed for each feature of work based on conversations with contractors actively performing this type of work. It is possible the quantities will increase but the impact will be marginal since there is a conservative quantity included in the estimate.	Marginal	Possible	1
Q-5	Carpentry	Concern expressed that each in individual structure will have it's own quantities. No measurements have been made to approximate quantities.	Quantities have been assumed for each feature of work based on conversations with contractors actively performing this type of work. It is possible the quantities will increase but the impact will be marginal since there is a conservative quantity included in the estimate.	Marginal	Possible	1

Q-6	Site Restoration	Concern expressed that each in individual structure will have it's own quantities. No measurements have been made to approximate quantities.	Quantities have been assumed for each feature of work based on conversations with contractors actively performing this type of work. It is possible the quantities will increase but the impact will be marginal since there is a conservative quantity included in the estimate.	Marginal	Possible	1
Q-12	Remaining Construction Items	No concerns.	N/A	Negligible	Unlikely	0
Q-13	Planning, Engineering, & Design	No concerns.	N/A	Negligible	Unlikely	0
Q-14	Construction Management	No concerns.	N/A	Negligible	Unlikely	0
Specialty Fabrication or Equipment				**Maximum Project Growth**		**75%**
FE-1	Excavation	No concerns.	N/A	Negligible	Unlikely	0
FE-2	Raising	No concerns.	N/A	Negligible	Unlikely	0
FE-3	Foundation Work	No concerns.	N/A	Negligible	Unlikely	0
FE-4	Utilities	No concerns.	N/A	Negligible	Unlikely	0
FE-5	Carpentry	No concerns.	N/A	Negligible	Unlikely	0
FE-6	Site Restoration	No concerns.	N/A	Negligible	Unlikely	0
FE-12	Remaining Construction Items	No concerns.	N/A	Negligible	Unlikely	0
FE-13	Planning, Engineering, & Design	No concerns.	N/A	Negligible	Unlikely	0
FE-14	Construction Management	No concerns.	N/A	Negligible	Unlikely	0
Cost Estimate Assumptions				**Maximum Project Growth**		**35%**
CT-1	Excavation	Cost engineer was responsible for a majority of assumptions included in the cost estimate with minimal input from PDT. Favorably, cost estimates for each structure configuration were corroborated by several contractors in this line of work.	Although contractor quotes were obtained for structure raisings, it is prohibitive to seek individual quotes for each structure. Quotes were obtained for several types of structures and each home was placed into one of these "categories". It is likely there will be some unanticipated increases but they should be marginal due to the conversations had with contractors performing this type of work and subsequent assumptions made by the cost engineer.	Marginal	Likely	2
CT-2	Raising	Cost engineer was responsible for a majority of assumptions included in the cost estimate with minimal input from PDT. Favorably, cost estimates for each structure configuration were corroborated by several contractors in this line of work.	Although contractor quotes were obtained for structure raisings, it is prohibitive to seek individual quotes for each structure. Quotes were obtained for several types of structures and each home was placed into one of these "categories". It is likely there will be some unanticipated increases but they should be marginal due to the conversations had with contractors performing this type of work and subsequent assumptions made by the cost engineer.	Marginal	Likely	2

CT-3	Foundation Work	Cost engineer was responsible for a majority of assumptions included in the cost estimate with minimal input from PDT. Favorably, cost estimates for each structure configuration were corroborated by several contractors in this line of work.	Although contractor quotes were obtained for structure raisings, it is prohibitive to seek individual quotes for each structure. Quotes were obtained for several types of structures and each home was placed into one of these "categories". It is likely there will be some unanticipated increases but they should be marginal due to the conversations had with contractors performing this type of work and subsequent assumptions made by the cost engineer.	Marginal	Likely	2
CT-4	Utilities	Cost engineer was responsible for a majority of assumptions included in the cost estimate with minimal input from PDT. Favorably, cost estimates for each structure configuration were corroborated by several contractors in this line of work.	Although contractor quotes were obtained for structure raisings, it is prohibitive to seek individual quotes for each structure. Quotes were obtained for several types of structures and each home was placed into one of these "categories". It is likely there will be some unanticipated increases but they should be marginal due to the conversations had with contractors performing this type of work and subsequent assumptions made by the cost engineer.	Marginal	Likely	2
CT-5	Carpentry	Cost engineer was responsible for a majority of assumptions included in the cost estimate with minimal input from PDT. Favorably, cost estimates for each structure configuration were corroborated by several contractors in this line of work.	Although contractor quotes were obtained for structure raisings, it is prohibitive to seek individual quotes for each structure. Quotes were obtained for several types of structures and each home was placed into one of these "categories". It is likely there will be some unanticipated increases but they should be marginal due to the conversations had with contractors performing this type of work and subsequent assumptions made by the cost engineer.	Marginal	Likely	2
CT-6	Site Restoration	Cost engineer was responsible for a majority of assumptions included in the cost estimate with minimal input from PDT. Favorably, cost estimates for each structure configuration were corroborated by several contractors in this line of work.	Although contractor quotes were obtained for structure raisings, it is prohibitive to seek individual quotes for each structure. Quotes were obtained for several types of structures and each home was placed into one of these "categories". It is likely there will be some unanticipated increases but they should be marginal due to the conversations had with contractors performing this type of work and subsequent assumptions made by the cost engineer.	Marginal	Likely	2
CT-12	Remaining Construction Items	No concerns.	N/A	Negligible	Unlikely	0
CT-13	Planning, Engineering, & Design	Initial P.E.D. costs will be vetted with Section chiefs.	Having various Sections review the initial P.E.D. costs should help mitigate any risks associated with this feature of work. It is still possible the costs will increase but it should have a marginal impact.	Marginal	Possible	1
CT-14	Construction Management	Initial Construction Management costs will be vetted with Construction Division.	Having Construction review the initial CM costs should help mitigate any risks associated with this feature of work. It is still possible the costs will increase but it should have a marginal impact.	Marginal	Possible	1
External Project Risks				**Maximum Project Growth**		**40%**
EX-1	Excavation	Concerns expressed over funding (both fed and nonfed) and local opposition to project. Weather/Acts of God, sea level rise, and unexpected fuel/material inflation were also concerns.	Sea level rise has been included in the analysis to determine elevation for structure raisings. CWCCIS inflation calculated in TPCS should be adequate to cover any fuel/material cost increases. Local opposition will not be an issue as any home owner who doesn't wish to participate will not have his/her home raised. Funding delays to the project has the possible potential to marginally impact construction costs for all portions of the project.	Marginal	Possible	1

EX-2	Raising	Concerns expressed over funding (both fed and nonfed) and local opposition to project. Weather/Acts of God, sea level rise, and unexpected fuel/material inflation were also concerns.	Sea level rise has been included in the analysis to determine elevation for structure raisings. CWCCIS inflation calculated in TPCS should be adequate to cover any fuel/material cost increases. Local opposition will not be an issue as any home owner who doesn't wish to participate will not have his/her home raised. Funding delays to the project has the possible potential to marginally impact construction costs for all portions of the project.	Marginal	Possible	1
EX-3	Foundation Work	Concerns expressed over funding (both fed and nonfed) and local opposition to project. Weather/Acts of God, sea level rise, and unexpected fuel/material inflation were also concerns.	Sea level rise has been included in the analysis to determine elevation for structure raisings. CWCCIS inflation calculated in TPCS should be adequate to cover any fuel/material cost increases. Local opposition will not be an issue as any home owner who doesn't wish to participate will not have his/her home raised. Funding delays to the project has the possible potential to marginally impact construction costs for all portions of the project.	Marginal	Possible	1
EX-4	Utilities	Concerns expressed over funding (both fed and nonfed) and local opposition to project. Weather/Acts of God, sea level rise, and unexpected fuel/material inflation were also concerns.	Sea level rise has been included in the analysis to determine elevation for structure raisings. CWCCIS inflation calculated in TPCS should be adequate to cover any fuel/material cost increases. Local opposition will not be an issue as any home owner who doesn't wish to participate will not have his/her home raised. Funding delays to the project has the possible potential to marginally impact construction costs for all portions of the project.	Marginal	Possible	1
EX-5	Carpentry	Concerns expressed over funding (both fed and nonfed) and local opposition to project. Weather/Acts of God, sea level rise, and unexpected fuel/material inflation were also concerns.	Sea level rise has been included in the analysis to determine elevation for structure raisings. CWCCIS inflation calculated in TPCS should be adequate to cover any fuel/material cost increases. Local opposition will not be an issue as any home owner who doesn't wish to participate will not have his/her home raised. Funding delays to the project has the possible potential to marginally impact construction costs for all portions of the project.	Marginal	Possible	1
EX-6	Site Restoration	Concerns expressed over funding (both fed and nonfed) and local opposition to project. Weather/Acts of God, sea level rise, and unexpected fuel/material inflation were also concerns.	Sea level rise has been included in the analysis to determine elevation for structure raisings. CWCCIS inflation calculated in TPCS should be adequate to cover any fuel/material cost increases. Local opposition will not be an issue as any home owner who doesn't wish to participate will not have his/her home raised. Funding delays to the project has the possible potential to marginally impact construction costs for all portions of the project.	Marginal	Possible	1
EX-12	Remaining Construction Items	No concerns.	N/A	Negligible	Unlikely	0
EX-13	Planning, Engineering, & Design	Concern expressed over availability of project funding for future phases. It is possible a project such as this with a relatively low BCR may have project funding delayed.	Non-structural BCR is quite good and non-structural alternative funding is not affected by BCR. It is unlikely this will happen but the impact could be moderate if project funding was delayed.	Moderate	Possible	2
EX-14	Construction Management	Concern expressed over availability of project funding for future phases. It is possible a project such as this with a relatively low BCR may have project funding delayed.	Non-structural BCR is quite good and non-structural alternative funding is not affected by BCR. It is unlikely this will happen but the impact could be moderate if project funding was delayed.	Moderate	Possible	2

Abbreviated Risk Analysis

wcatuck River Coastal Storm Damage Reduction Feasibility Stu
Feasibility (Alternatives)

Meeting Date: 14-Dec-15

PDT Members

Note: PDT involvement is commensurate with project size and involvement.

Represents	Name
Project Management:	NAME
Planner:	NAME
Study Manager:	NAME
Contracting:	NAME
Real Estate:	Jeffrey Teller
Relocations:	NAME
OTHER:	Denise Kammerer-cody (Economics)
Engineering & Design:	NAME
Technical Lead:	NAME
Geotech:	Dara Gay
H&H	Marilyn Mroz
Civil:	Mark Godfrey
Structural:	Thuyen Nguyen
Mechanical:	Angela Frisino
Electrical:	Jeanine Cline
Cost Engineering:	Jeffrey Gaeta
Construction:	Ted Frazzetta
Operations:	NAME
Environmental:	Judy Johnson
VE	NAME
DOT & PF Sponsor	NAME
DOT & PF Sponsor	NAME
OTHER:	Kathleen Atwood (Economic & Cultural Resources)
OTHER:	John Winkelman (Water Management)
OTHER:	NAME
	NAME