

Smart, Safe Growth for the CNMI

SSG Project Evaluation Tool in ArcGIS Survey 123



Purpose

- **SSG overview**
- **Introduce SSG project evaluation tool**
- **Provide roles and responsibilities for completing project evaluations**
- **Process for completing project evaluations**

Learning Objectives

- Learn to use the tool to evaluate and improve project conformance with SSG principles
- Understand how SSG principles support the CSDP
- Learn how to input data into the evaluation tool
- Learn to access supporting SSG resources to support determinations/recommendations
- Demonstrate ability to complete a project evaluation

Learning Tool

Training Module 6 – SSG Evaluation Tool
Handout 1
Personal Learning Goals
Activity Time: 2 Minutes

Instructions: Write down two topics you want to learn more about.

Learning Goal for Topic 1:

Learning Goal for Topic 2:

Training Module 6 – SSG Evaluation Tool
Personal Learning Goal Evaluation
Activity Time: 2 Minutes

Instructions: At the end of Module 6, write a few sentences to evaluate your progress toward your learning goals.

Evaluation for Learning Goal for Topic 1:

Evaluation for Learning Goal for Topic 2:

Learning Tool

SMART, SAFE GROWTH
GUIDANCE AND RECOVERY AND HAZARD MITIGATION PLANNING
FOR THE CNMI
19 – 28 JULY 2022

Training Module 6 – SSG Evaluation Tool Handout 2 How Will You Use the Evaluation Tool?

Instructions: As the training module progresses, decide if the following statements are true or false and circle the answer. Be prepared to go over the answers the group.

1. The Tool outcome will provide specific answers to implement/improve SSG conformance. True False
2. The Tool can be used by private developers to identify and include project features to improve SSG conformance scores. True False
3. An Evaluator Self-Certification Statement is required. True False
4. Links to technical resources and key terms and definitions are provided in the Tool. True False
5. There are 18 SSG Principles. True False
6. The Tool criteria are divided into 7 major sections. True False
7. The Tool will automatically ensure the points associated with the selected project description match the point value enter by the user in the Points for Criteria field. True False
8. The user is responsible to ensure that the points value entered into the Points for Criteria field accurately match the selected project description. True False
9. There are 5 Utilities Demands questions. True False
10. Any number can be entered into the Points for Criteria field. True False

Comprehensive Planning and SSG

- **CSDP identifies growth priorities for the next 10 years**
- **Public Law 20-20 establishes planning elements**
- **CSDP adopts SSG principles as a development guideline**

SSG Overview

• **Development strategies**

• Improve community

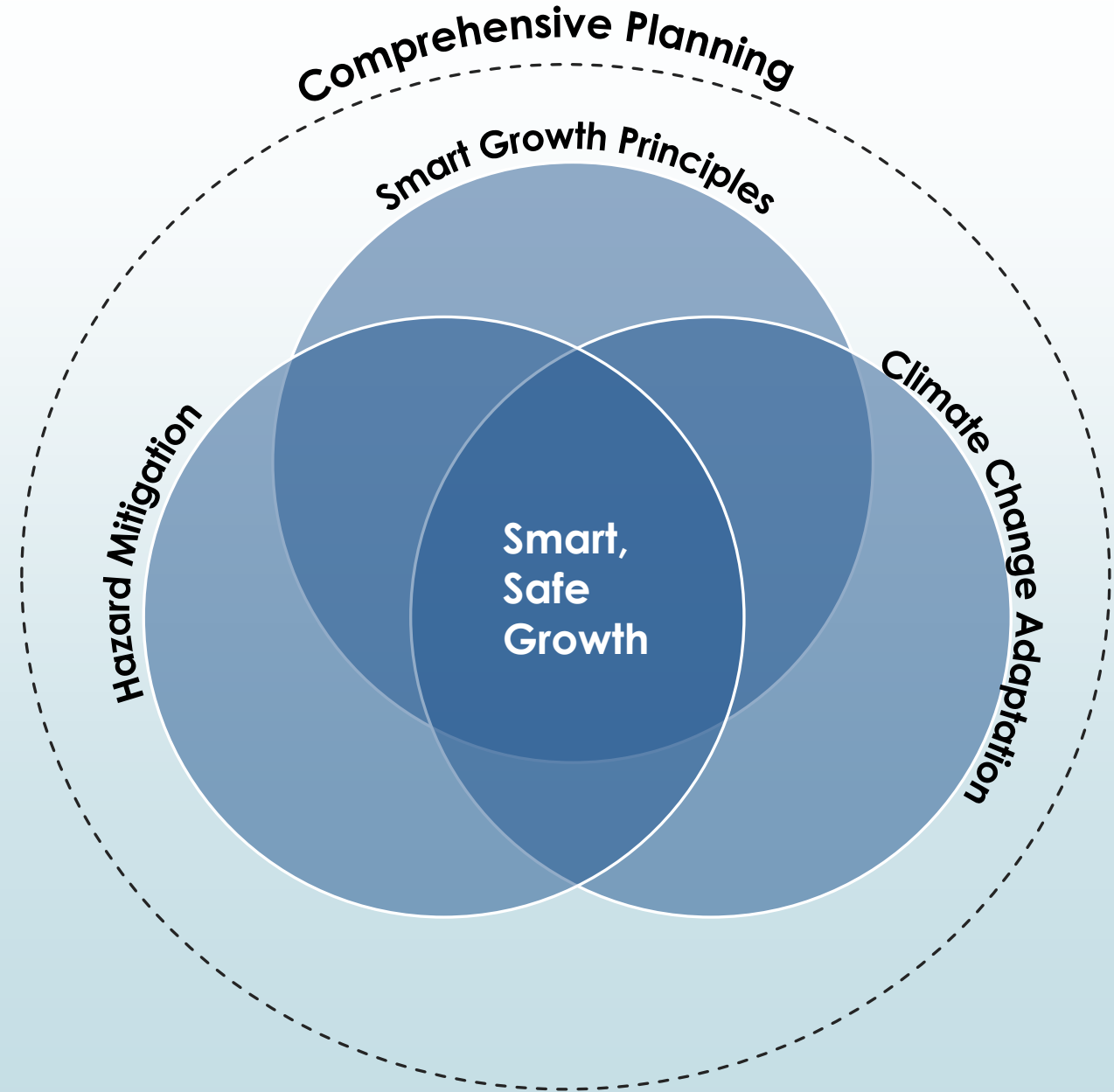
• Strengthen economies

• Protect the natural environment

• Improve the resiliency/recoverability of the built environment

SSG Overview

- **SSG emerges from**
 - Smart growth
 - Hazard mitigation
 - Climate adaptation



SSG Overview – Principles

- **Practical aspects of SSG**
- **Enable well-informed decision making**
- **Conceptual guides**

Smart, Safe Growth Principles

1. **Climate Change**
2. **Retreat**
3. **Retrofit**
4. **Critical Facilities Location**
5. **Development Incentives**
6. **Sustainable Development BMPs**
7. **Ecosystem Services**
8. **Green Infrastructure**
9. **Development Decision Processes**
10. **Early Collaboration**
11. **SSG Knowledgeable Communities**
12. **Adaptive Management**

Evaluation Tool Development

- **CSDP - Consider SSG principles in project scoping, planning and implementation**
- **2018 Guidance Manual for SSG provides some tools**
- **Online evaluation tool facilitates**
 - Access to evaluation tool and SSG-relevant resources
 - Ensures SSG is considered during review
 - Provides standard outputs for project comparison

Why an Evaluation Tool?

- **Standardize project / plan reviews**
- **Identify or improve project resiliency and sustainability**
 - Raise SSG conformance for funding priority
 - Improve federal / territorial grant proposals
- **Rank and prioritize projects**
- **Influence private sector development to include SSG**
- **Influence the CNMI work-culture toward SSG and sustainable development**

Limitation of the Evaluation Tool

- **No statutory or regulatory function**
- **Input / Outcomes require interpretation**
- **Tool identifies areas of potential**

Evaluation Tool Users

- **Agency staff**
 - Designers
 - Planners
 - Regulators
- **Legislators / Government Officials**
- **Private Sector Developers**

Evaluation Tool Overview

- **Project information and survey instructions**
- **Climate change and hazard mitigation – 14 criteria**
- **Incentives – 1 criterion**
- **Smart growth – 6 criteria**
- **Environmental protection and ecosystem services – 5 criteria**
- **Cultural resources protection – 2 criteria**
- **Utility demand – 5 questions**

Using the Evaluation Tool – Project / Plan Information

SSG Project Evaluation Tool

Evaluator Profile ▾

Name:

Organization / Affiliation:

Date Assessment Completed:

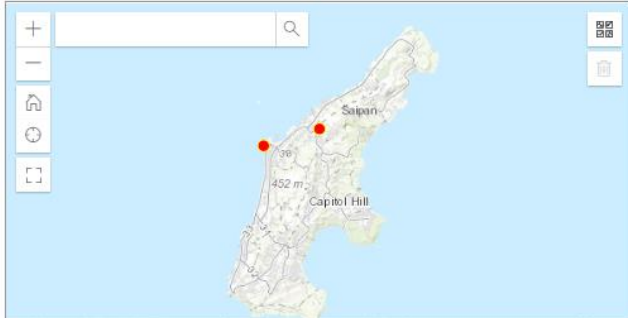
Proposed Project ▾

Project Name:

Project Proponent:

Project Location (island, village):

Project Location:



BEQC, Esri, © OpenStreetMap contributors, HERE, Garmin, USGS, NGA Powered by Esri

Lat: Lon:

Estimated Construction Cost:

Development Category:

Residential

Commercial

Public Use Facility

Utility

Government Office or Building

Brief Description (max 100 words):

Using the Tool –

How to use this SURVEY

This SURVEY presents a series of criteria for assessment of SSG conformance related to the 12 SSG principles in the *CNMI Smart, Safe Growth Guidance Manual 2018 (SSG-GM)* [available here](#). These criteria are to be applied to the project under review to support assessment of compliance as well as identify potential gaps and opportunities for further incorporation of these principles into project design and implementation. For additional guidance please visit the SSG SURVEY FAQ [click here](#).

For each criteria in this SURVEY (numbered 1-28), the Evaluator is provided with a few bullet points to introduce the criteria in the proper context. To help guide selection of the best score, a range of technical resources to facilitate understanding of the criteria in the SSG context are [available here](#). These technical resources are provided to allow the Evaluator to pursue specific reference documents to the depth the Evaluator chooses. Finally, where deemed necessary for clarity, definitions for key terms are [available here](#).

The first step for each criterion (1-28) is to determine if the criteria is applicable or not applicable (N/A) to the project. If not applicable, the SURVEY automatically tallies a "0" score of the criteria and adjusts the scoring relative to the maximum points available. The Evaluator then moves on to the next criteria

Where a criterion is applicable to a project, a series of choices with associated scores are presented for the Evaluator to select, depending on how the Evaluator assesses conformance with the indicated SSG principle(s). The SURVEY automatically enters the points associated with the choice selected by the Evaluator into the points field. Then the SURVEY tracks scoring automatically for section sub-totals and total score and includes compensation for any N/A categories.

Evaluator Self-certification Statement

I hereby certify that I have accessed and interpreted the *CNMI Smart, Safe Growth Guidance Manual 2018 (SSG-GM)*, that I am familiar with the 12 SSG principles, and that the SURVEY will be completed truthfully to the best of my knowledge.*

Yes

No

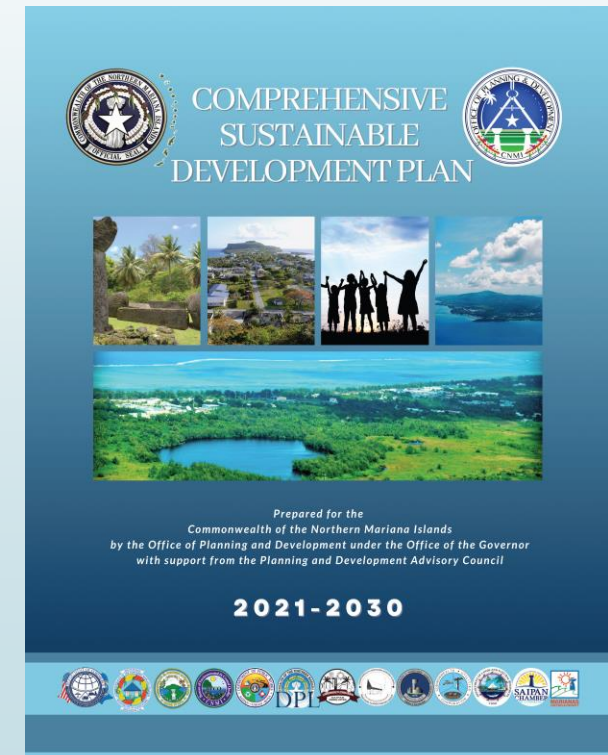
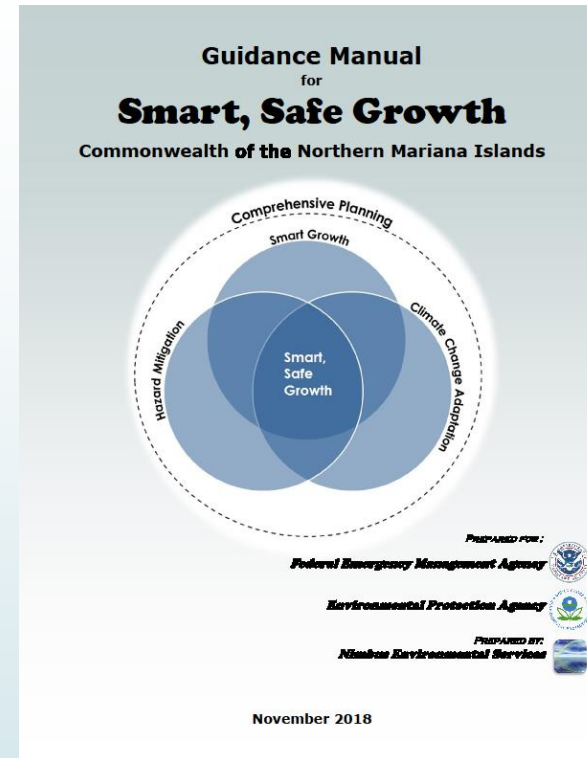
[Click here](#) to access the *Smart, Safe Growth Guidance Manual 2018*.

[Click here](#) to access the SSG principles.

 **Evaluator Self-certification Statement - * required field**

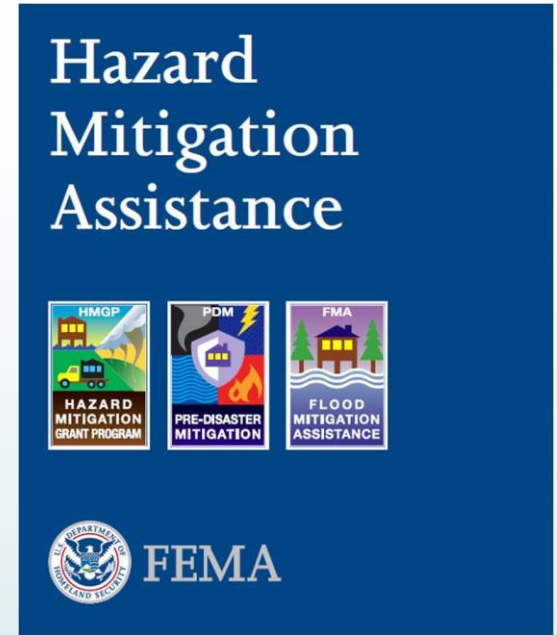
Survey Resources

- *SSG Guidance Manual*
- CSDP
- SSG principles
- Key definitions and criteria background



Technical Resources

- Links to OPD – SSG digital library
- Collection of technical resources
- Search terms to help find suggested resources
- Research to recommend solutions



Evaluation Criteria

Evaluation Criteria - Begin SURVEY ▼

CLIMATE ADAPTATION AND HAZARD MITIGATION (SSG Principles P1, P2, P3, P4) ▼

Criteria #1 - Future Flooding and Inundation Potential due to SLR and SLC ▼

- Sea Level Rise (SLR) and Sea Level Change (SLC) pose present and continued risk to the built and natural environments in the CNMI.
- Planning and mitigating the potential risks of SLR/SLC today can help safeguard public investments and public safety and health, and work towards sustainable communities through SSG.

[Click here](#) to access the *Smart, Safe Growth Guidance Manual 2018*.

[Click Here](#) to access addition background information and key term definitions.

[Click Here](#) to access technical resources in the online SSG reference library.

Technical Resources Search Terms: Climate Adaptation, Climate Change, DCRM, Flooding, NOAA, Regulations, Resilience, Sea Level Rise, SSMP, Smart Growth, SSG Planning Tools, Sustainable Communities

Applicability of Future Flooding and Inundation Potential due to SLR and SLC to the Proposed Project

- If the proposed project is located within the FEMA flood zone or the Adopted Flood Scenario zone (i.e., SLR/SLC flood zone), this criterion is applicable and flooding due to SLR and SLC is a potential hazard that should be addressed and possibly mitigated in the project design or proposal.
- If the proposed project is located outside a SLR/SLC flood zone, this criterion is not applicable.

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

Process to score criteria

🌀 Applicable?

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

Criteria not scored

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

Points for Criteria #1*

Maximum Points for Criteria #1

Percent SSG Conformance Score for Criteria #1

Process to score criteria

- Select SSG description -
*required field
- Points – *required field
- % SSG conformance score

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

3 Points - Majority of critical features ▼

Points for Criteria #1*

12³ 3

Maximum Points for Criteria #1

12³ 4

Percent SSG Conformance Score for Criteria #1

12³ 75

Process to score criteria

- Change selection
- Delete entire field contents
- Make new selection

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

This is a required question

Points for Criteria #1*

Maximum Points for Criteria #1

Percent SSG Conformance Score for Criteria #1

Process to score criteria

- Required Fields
- Change selection
- Delete entire field contents
- Make new selection

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

This is a required field.

- 4 Points - All critical features are constructed above SLR/SLC flood zones; flood risk is minimal.
- 3 Points - Majority of critical features (> 75%) constructed above SLR and SLC flood zones; flood risk is low.
- 2 Points - Some critical features (25% to 75%) constructed above SLR and SLC flood zones; flood risk is moderate.
- 1 Point - Minimum critical features (some, <25%) constructed above SLR and SLC flood zones; flood risk is high.
- 0 Points - SLR and SLC not addressed for any critical project features.

Points for Criteria #1

Maximum Points for Criteria #1

Percent SSG Conformance Score for Criteria #1

Process to score criteria

- Change selected description
- Delete entire field contents
- Make new selection
- Change points total

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

4 Points - All critical features are cons ▼

Points for Criteria #1*

3

Maximum Points for Criteria #1

4

Percent SSG Conformance Score for Criteria #1

75

Process to score criteria

- Change Points for Criteria
- Delete entire field contents
- Enter new points

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

4 Points - All critical features are cons ▼

Points for Criteria #1*

12³

Enter Points

Maximum Points for Criteria #1

12³ 4

Percent SSG Conformance Score for Criteria #1

12³

Process to score criteria

🌀 Constraints limit entry options for Points

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

4 Points - All critical features are cons ▼

Points for Criteria #1*

12³ 8

Enter Value from 1 to 4

Maximum Points for Criteria #1

12³ 4

Percent SSG Conformance Score for Criteria #1

12³ 200

Process to score criteria

🌀 Ready to go to next criterion

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

4 Points - All critical features are cons ▼

Points for Criteria #1*

12³ 4

Maximum Points for Criteria #1

12³ 4

Percent SSG Conformance Score for Criteria #1

12³ 100

Survey Section Scores

- Total points assigned
- Total points possible based on applicable criteria
- % SSG conformance score

SSG Conformance Metrics for CLIMATE ADAPTATION AND HAZARD MITIGATION

SUBTOTAL of Points Assigned for Applicable Criteria

12³ 28

Number of Criteria Selected as Applicable (Max 14 Criteria)

12³ 10

Maximum Points Available per Applicable Criteria

12³ 40

Percent SSG Conformance Score

12³ 70

Utility Demand Questions

- Utility demand questions
- Not totaled in the final SSG conformance score

Utilities Demand for the Proposed Project

- Major siting permits require project proponents to estimate utilities demands for electrical power, drinking water consumption, generation of wastewater, and generation of solid waste.
- SSG strategies help to improve the resiliency of utilities systems.
- Providing information for the categories below will help characterize the overall impact of the proposed project on CNMI utilities systems and resources.
- Although this section does not contribute to the overall SSG conformance score for the project, information provided will help characterize the overall impact of the proposed project on CNMI utilities and highlight additional opportunities to incorporate SSG strategies.

Enter the anticipated electrical power demand for the proposed project.

Enter electrical power units.

Enter the anticipated potable water demand for the proposed project (gal/day).

Enter the estimated volume of wastewater generated for the proposed project (gal/day).

Enter the estimated amount of solid waste generated for the proposed project (lb/person/day).

Survey Total Score

- Automatic totals
- Overall score
- Submit the survey

SSG Conformance Metrics for ALL SSG EVALUATION CRITERIA

Total Points Assigned for All Applicable Criteria

66

Total Number of Criteria Selected as Applicable (Max 28 Criteria)

22

Total Maximum Points Available per Applicable Criteria

88

Total Percent SSG Conformance Score for Project

75

Submit

Required Field Errors – Self-certification Statement

- Errors display when submitting survey
- Must fix all errors prior to submission

Survey contains errors: 26. Press here to navigate to each error.

Evaluator Self-certification Statement ▼

I hereby certify that I have accessed and interpreted the *CNMI Smart, Safe Growth Guidance Manual 2018 (SSG-GM)*, that I am familiar with the 12 SSG principles, and that the *SURVEY* will be completed truthfully to the best of my knowledge.*

Yes

No

This is a required question

Required Field Errors – Criteria Applicability

Survey contains errors: 27. Press here to navigate to each error.

[Click here to access the SSG Principles.](#)

Evaluation Criteria - Begin SURVEY ▾

CLIMATE ADAPTATION AND HAZARD MITIGATION (SSG Principles P1, P2, P3, P4) ▾

Criteria #1 - Future Flooding and Inundation Potential due to SLR and SLC ▾

- Sea Level Rise (SLR) and Sea Level Change (SLC) pose present and continued risk to the built and natural environments in the CNMI.
- Planning and mitigating the potential risks of SLR/SLC today can help safeguard public investments and public safety and health, and work towards sustainable communities through SSG.

[Click here](#) to access the *Smart, Safe Growth Guidance Manual 2018*.

[Click Here](#) to access addition background information and key term definitions.

[Click Here](#) to access technical resources in the online SSG reference library.

Applicability of Future Flooding and Inundation Potential due to SLR and SLC to the Proposed Project

- If the proposed project is located within the FEMA flood zone or the Adopted Flood Scenario zone (i.e., SLR/SLC flood zone), this criterion is applicable and flooding due to SLR and SLC is a potential hazard that should be addressed and possibly mitigated in the project design or proposal.
- If the proposed project is located outside a SLR/SLC flood zone, this criterion is not applicable.

Criteria #1 - SSG Conformance Questions

Is future flooding and inundation potential due to SLR and SLC applicable to the proposed project?*

Yes

No

This is a required question

Required Field Errors – Project description

Survey contains errors: 30. Press here to navigate to each error.

Criteria #2 - SSG Conformance Questions

Is future coastal erosion potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

natural coastal erosion features (e.g. ▾)

This is a required question

Points for Criteria #2*

123 4

Enter Points

Maximum Points for Criteria #2

123 4

Percent SSG Conformance Score for Criteria #2

123

Survey contains errors: 29. Press here to navigate to each error.

Criteria #2 - SSG Conformance Questions

Is future coastal erosion potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

natural coastal erosion features (e.g. ▾)

This is a required question

Points for Criteria #2*

123 3

Maximum Points for Criteria #2

123 4

Percent SSG Conformance Score for Criteria #2

123 75

Required Field and Constraint Errors – Points for Criteria

Survey contains errors: 29. Press here to navigate to each error.
Criterion is not applicable.

Criteria #2 - SSG Conformance Questions

Is future coastal erosion potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

3 Points - Existing natural coastal ero. ▼

Points for Criteria #2*

Enter Points

Maximum Points for Criteria #2

Percent SSG Conformance Score for Criteria #2

Survey contains errors: 29. Press here to navigate to each error.
Criterion is not applicable.

Criteria #2 - SSG Conformance Questions

Is future coastal erosion potential due to SLR and SLC applicable to the proposed project?*

Yes

No

For projects that may be affected by coastal erosion due to SLR/SLC, select the description that best fits the proposed project:*

3 Points - Existing natural coastal ero. ▼

Points for Criteria #2*

Enter Value from 1 to 4

Maximum Points for Criteria #2

Percent SSG Conformance Score for Criteria #2

Conclusion

- **Standardize reviews for project / plan prioritization**
- **Through SSG, the tool will help work toward resilient, safe, healthy, and economically viable communities**
- **Help CNMI communities to work, live, and build sustainably into the future.**

How will you use the Evaluation Tool?

- Review of plans / projects
- Project design
- Plan development
- Other functions???

Activity – Check Learning Goals

- Revisit learning goals written at the beginning of the training module
- Reflect if you met your goals

Training Module 6 - SSG Evaluation Tool
Handout 2
How Will You Use the Evaluation Tool?

Instructions: As the training module progresses, decide if the following statements are true or false and circle the answer. Be prepared to go over the answers the group.

1. The tool outcome will provide a specific answer to implement/improve SSG conformance. True False
FALSE. The outcome only shows potential areas to improve SSG conformance and the user must interpret the outcome to decide on the best path forward.
2. The Tool can be used by private developers to include project features to improve SSG conformance scores. True False
3. An Evaluator Self-certification statement is required. True False
4. Links to technical resources and key terms and definitions are provided in the Tool. True False
5. There are 18 SSG Principles. True False
FALSE. There are 12.
6. The tool criteria are divided into 7 major sections. True False
FALSE. Criteria are divided into 5 major sections
7. The Tool will automatically ensure the points associated with the selected project description match the point the user enters into the points field. True False
FALSE. The user must ensure they are entering the correct point value associated with the selected project description.
8. The user is responsible to ensure that the points total entered accurately match the selected project descriptions. True False
9. There are 5 Utilities Demands questions. True False
10. Any number can be entered into the Points for Criteria field. True False
FALSE. The field is constrained to only values associated to the project descriptions.