

# Stormwater Cumulative and Secondary Impact Assessment Guidance & Training

Presentation to: Ocean Resources  
Management Plan Working Group

February 7, 2013



# Presentation Outline

- Project introduction
- Project need and background
- Project tasks, methods and aspirations
- Relationship to ORMP

**Project Title:**  
**“Stormwater Cumulative and  
Secondary Impact Assessment  
Guidance and Training”**

- Refine the methods or steps for assessment of primary, secondary and cumulative stormwater impacts
- Primary audience is reviewers of EA/EIS

# Project Need

“Cumulative and secondary impacts of development—impacts that may be insignificant by themselves but, when combined with all other development impacts in an area over time, threaten coastal resources throughout the country. These impacts can include habitat loss, air and water pollution, hampered navigation, and loss of public access to coastal areas...



**WATER QUALITY ADVISORY**  
**DUE TO STORM WATER RUN-OFF**  
**FROM RECENT RAINS, BACTERIA**  
**LEVELS IN THE WATER HERE**  
**EXCEED STATE WATER QUALITY**  
**STANDARDS.**

**FULL BODY CONTACT IS NOT**  
**RECOMMENDED.**

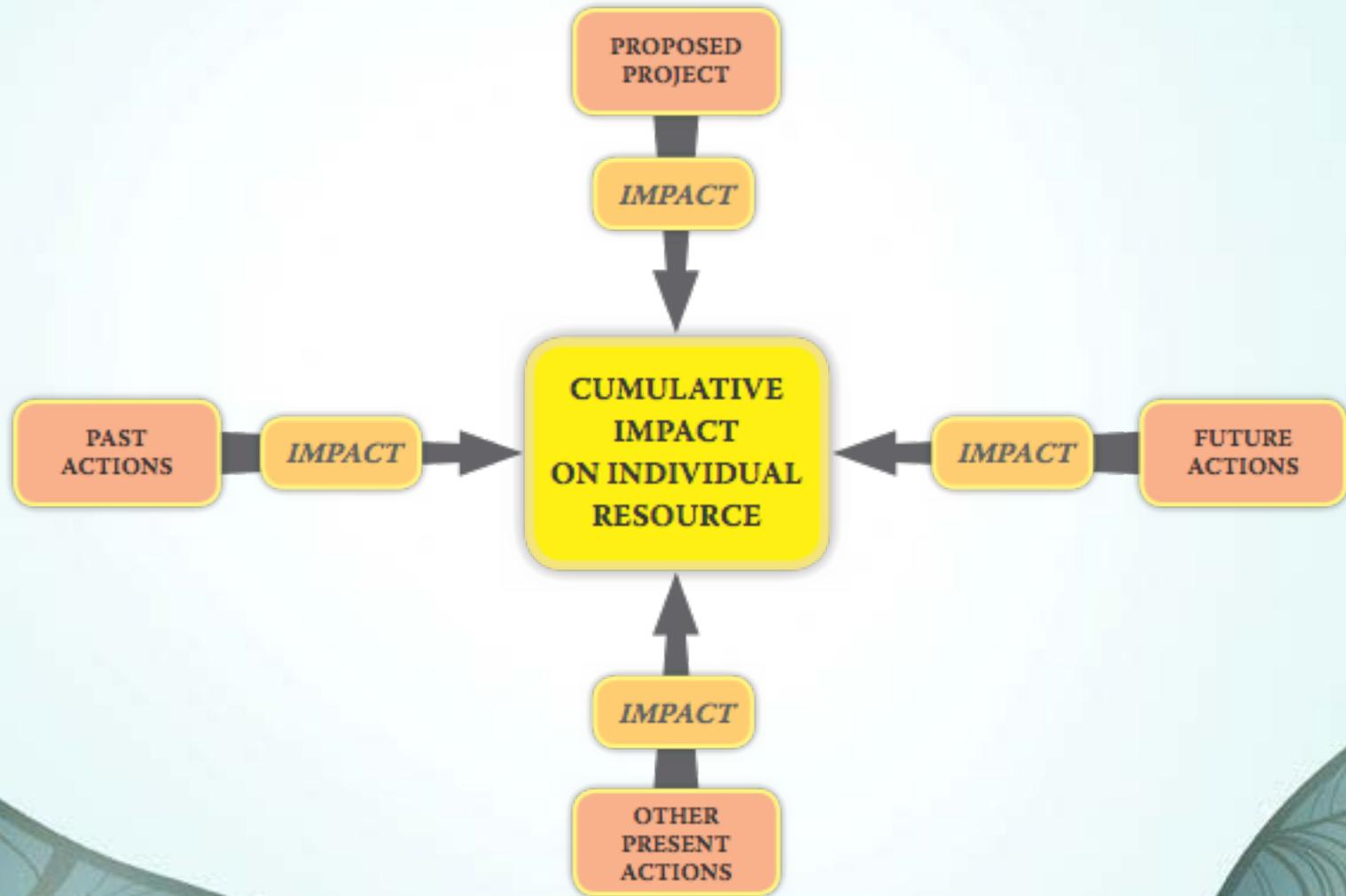


# Project Need

...However, the real problem isn't so much that the coastal zone is developing, but how that development is occurring.”

*-NOAA Ocean & Coastal Resource Management Website*

# Cumulative Impacts



# Project Need, cont'd.

- The Cumulative and Secondary Impacts project was initiated in CZM's Section 309 Enhancement Area Grant Program for 2006-2010
  - Phases I and II completed
  - Current effort is the third and final phase

# Cumulative and Secondary Impacts (CSI) Project Background

- CSI Phase I
  - Assess the current state of practice in EIS' to address stormwater cumulative impacts **and** incorporation of mitigation measures as permit conditions.
  - Findings:
    - With a few exceptions, EIS address factors that contribute to stormwater runoff in a fairly cursory manner.
    - In most cases, conditions of approval simply assert the need for compliance with Federal, State or County regulations to be enforced during project development phases

# Cumulative and Secondary Impacts (CSI) Project Background

- CSI Phase II
  - Stormwater Assessment Pilot Study using a model (N-SPECT) to quantify impacts
  - Results/Conclusions:
    - Past assessment practices have been overly narrow in scope
    - Identifies strengths and weaknesses of N-SPECT
    - Recommendations for an improved practice for conducting stormwater assessments in Hawai'i

# CSI Phase III Tasks

- Refine the methods or steps for assessment of primary, secondary and cumulative stormwater impacts
- Suggest BMPs and mitigation measures
- Develop a guidance document
- Conduct training on the guidance document's methods and mitigation concepts

# CSI Phase III Methods

- Convene focus group to vet assessment methods
- Develop a manual that is straightforward, encouraging use of available resources and data
- Make trainings island-specific and interesting!

# CSI Phase III

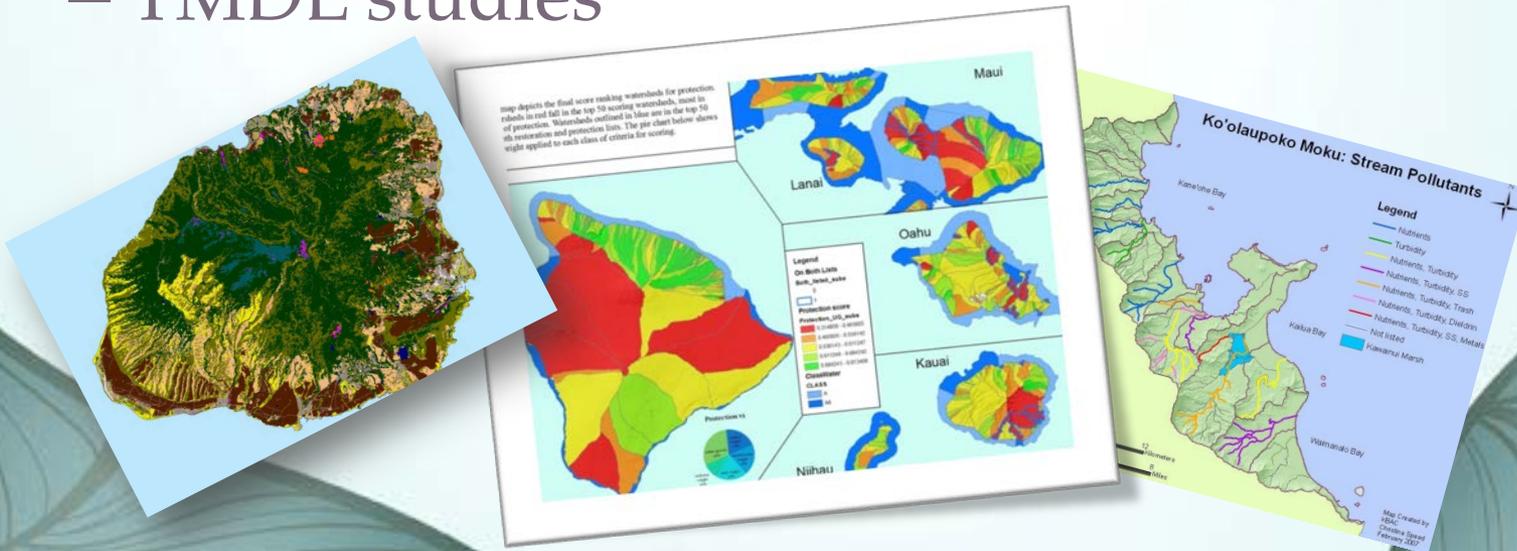
## Manual Aspirations

- Easy to follow steps for reviewers and preparers
- Suggestions for when detailed, quantitative analysis might be warranted
- Direct reviewers to available resources
- Recommendations for matching BMPs, LID to site conditions and mitigation goals

# CSI Phase III

## Available Resources

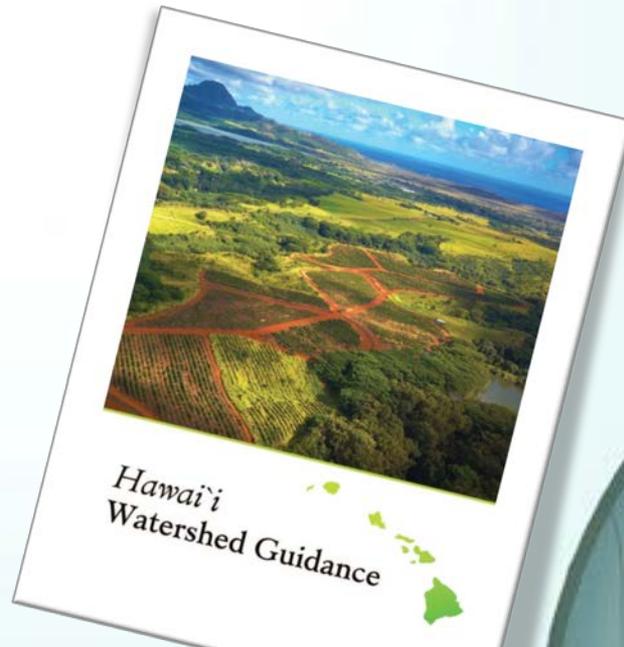
- 2009 Hawai'i Watershed Prioritization Process (HI CZM/NOAA)
- land cover data (CCAP, HI GAP)
- Watershed Plans (EPA 319 grant funded)
- TMDL studies



# CSI Phase III

## Analysis Supportive of Other Efforts

- HRS §343; NPDES, County Codes
- Watershed Plan goals
- LEED Credits, Sustainable Sites Credits
- 2010 Hawai'i Watershed Guidance (HI CZM/NOAA)



# CSI Phase III, cont'd.

- Project activities Spring, 2013
  - Focus group
  - Develop Manual
  - Deliver trainings
- Completion May 31, 2013

# CSI & the Draft ORMP

- Connect the Land and the Sea:
  - “Improve coastal water quality by reducing land-based sources of pollution...”
  - “Through integrated policies and plans, ensure freshwater quantity is maintained in aquifers and streams with restoration of flows to wetlands, streams, estuaries and near shore waters”

# CSI & Draft ORMP, cont'd.

- Promote Collaboration and Stewardship Practices:
  - “Apply place-based approaches to the management of natural and cultural resources”

# Thank You!

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# A concluding thought...

A mountain is composed of tiny grains of earth. The ocean is made up of tiny drops of water. Even so, life is but an endless series of little details, actions, speeches, and thoughts. And the consequences whether good or bad of even the least of them are far-reaching.

[-Sivananda](#)