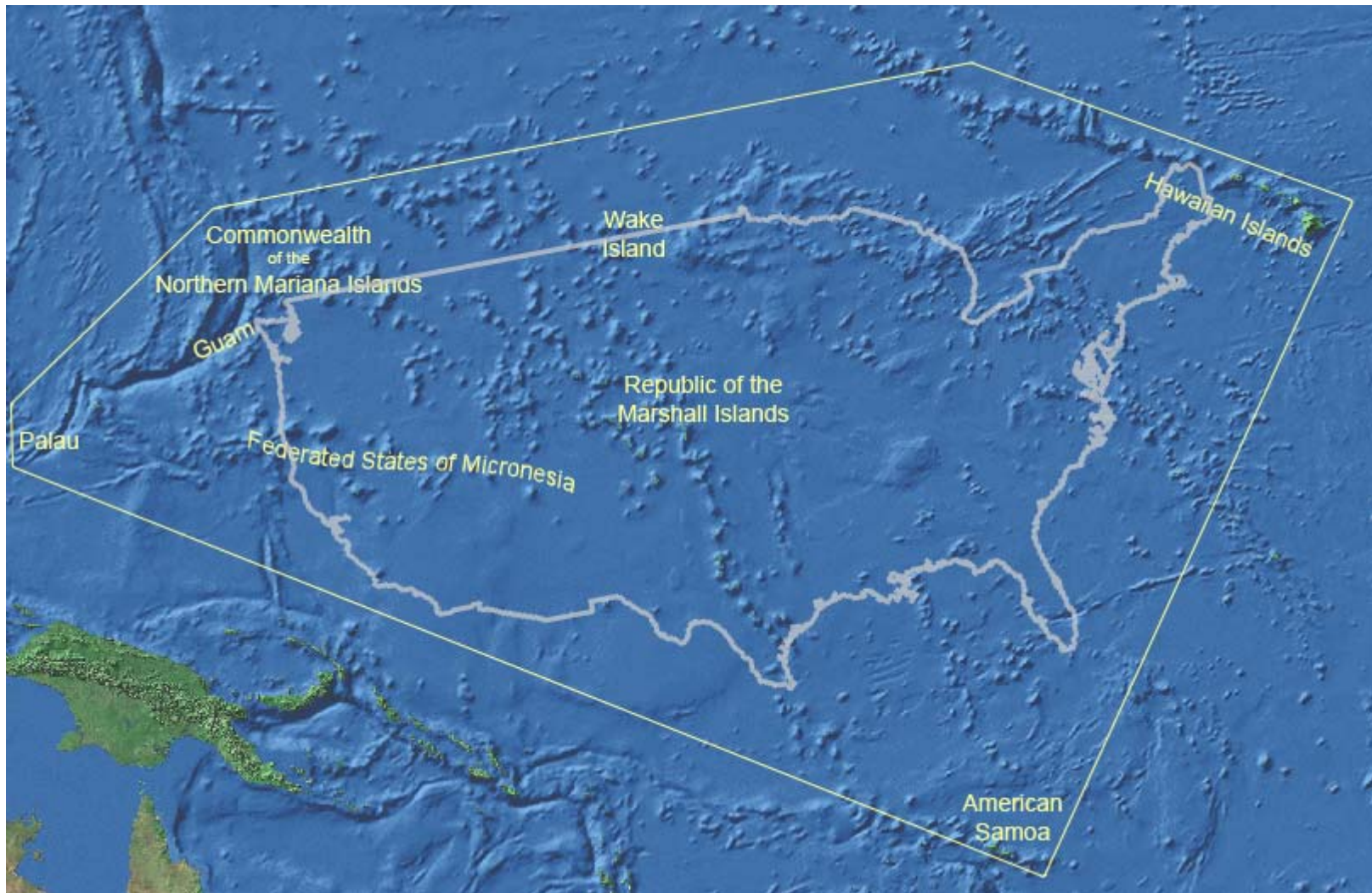




NRCS Programs and Practices for Riparian Areas in Hawaii



NRCS Pacific Islands Area



- **Hawaii - State (State (PIA) Office – Honolulu, Oahu)**
 - Seven field offices (Kauai, Oahu, Molokai, Maui, Hawaii)
 - Plant Materials Center (Molokai)



NRCS Programs

- Cost-share
 - Environmental Quality Incentives Program (EQIP)
 - Wildlife Habitat Incentives Program (WHIP)
 - Wetlands Reserve Program (WRP)
- Non-Cost-share
 - Technical Assistance

NRCS Programs

- Part of the Farm Bill (Farm Security and Rural Investment Act 2002)
- Voluntary participation
- Cost-share (reimbursable)
- Conservation easements
- Variable eligibility and implementation schedules

EQIP

- Only agricultural lands are eligible
- Farmers and ranchers may receive financial and technical assistance to install or implement structural and conservation management practices on eligible agricultural land
- Used to address natural resource problems, including water quality and wildlife

WHIP

- All non-federal lands are eligible
- Used to enhance habitat for native plants and animals



WRP

- Only agricultural lands (retires land from agriculture for wildlife purposes)
- Creates, restores or enhances wetland and riparian wildlife habitat
- Conservation easements or management contracts



Technical Assistance

- Basically, free consulting service
- Identify resource concerns/problems and suggest conservation practices to correct those problems



Conservation Practices

- Stream Habitat Improvement and Management
- Riparian Forest Buffer
- Riparian Herbaceous Cover
- Wetland Wildlife Habitat Management
- Upland Wildlife Habitat Management
- Tree and Shrub Establishment
- Pest Management

Stream Habitat Improvement and Management

- **DEFINITION**

- Maintain, improve, or restore physical, chemical and biological functions of a stream

- **PURPOSES**

- Provide suitable habitat for desired aquatic species and diverse aquatic communities
- Provide channel morphology and associated riparian characteristics important to desired aquatic species

- **CONDITIONS WHERE PRACTICE APPLIES**

- Streams where habitat deficiencies limit survival, growth, reproduction, and/or diversity of aquatic species in relation to the potential of the stream

Riparian Forest Buffer

- **Definition**
 - A riparian forest buffer is an area predominantly trees and/or shrubs located adjacent to and up-gradient from watercourses or water bodies
- **Purpose**
 - Create shade to lower or maintain water temperatures to improve habitat for aquatic organisms
 - Create or improve riparian habitat and provide a source of detritus and large woody debris
 - Reduce excess amounts of sediment, organic material, nutrients and pesticides in surface runoff and reduce excess nutrients and other chemicals in shallow ground water flow
 - Reduce pesticide drift entering the water body
 - Restore riparian plant communities
 - Increase carbon storage in plant biomass and soils
- **Conditions Where Practice Applies**
 - Riparian forest buffers are applied on areas adjacent to permanent or intermittent streams, lakes, ponds, and wetlands. They are not applied to stabilize stream banks or shorelines

Riparian Herbaceous Cover

- **Definition**
 - Grasses, grass-like plants and forbs that are tolerant of intermittent flooding or saturated soils and that are established or managed in the transitional zone between terrestrial and aquatic habitats
- **Purpose**
 - Provide food, shelter, shading substrate, access to adjacent habitats, nursery habitat and pathways for movement by resident and nonresident aquatic, semi-aquatic and terrestrial organisms
 - Improve and protect water quality by reducing the amount of sediment and other pollutantsHelp stabilize stream bank and shorelines
- **Conditions Where Practice Applies**
 - Areas adjacent to perennial and intermittent watercourses or water bodies where the natural plant community is dominated by herbaceous vegetation that is tolerant of periodic flooding or saturated soils
 - Where the riparian area has been altered and the potential natural plant community has changed or converted to cropland, pastureland, rangeland or other commercial/agricultural uses

Wetland Wildlife Habitat Management

- **Definition**
 - Retaining, developing or managing wetland habitat for wetland wildlife
- **Purpose**
 - To maintain, develop, or improve wetland habitat for waterfowl, shorebirds, or other wetland dependent or associated flora and fauna
- **Conditions Where Practice Applies**
 - On or adjacent to wetlands, rivers, lakes and other water bodies where wetland associated wildlife habitat can be managed. This practice applies to natural wetlands and/or water bodies as well as wetlands that may have been previously restored, enhanced, and created

Upland Wildlife Habitat Management

- **DEFINITION**
 - Provide and manage upland habitats and connectivity within the landscape for wildlife
- **PURPOSE**
 - Treating upland wildlife habitat concerns identified during the conservation planning process that enable movement, or provide shelter, cover, food in proper amounts, locations and times to sustain wild animals that inhabit uplands during a portion of their life cycle
- **CONDITIONS WHERE PRACTICE APPLIES**
 - Land where the decision maker has identified an objective for conserving a wild animal species, guild, suite or ecosystem
 - Land within the range of targeted wildlife species and capable of supporting the desired habitat



Tree and Shrub Establishment

- **DEFINITION**

- Establishing woody plants by planting seedlings or cuttings, direct seeding, or natural regeneration

- **PURPOSE**

- Establish woody plants for:
 - forest products such as timber, pulpwood, and energy biomass
 - wildlife habitat
 - long-term erosion control and improvement of water quality
 - treating waste
 - storing carbon in biomass
 - energy conservation
 - improving or restoring natural diversity
 - enhancing aesthetics

- **CONDITIONS WHERE PRACTICE APPLIES**

- Tree/shrub establishment can be applied on any appropriately prepared site where woody plants can be grown

Resources

- <http://www.hi.nrcs.usda.gov/>
- Go to Technical Resources Tab and look for eFOTG or Technical Notes
 - Biology Technical Note - No. 9, Hawaii Stream Visual Assessment Protocol