NEIL ABERCROMBIE



WILLIAM J. AILA, JR.

WILLIAM D. BALFOUR, JR. KAMANA BEAMER LORETTA J. FUDDY, A.C.S.W., M.P.H. MILTON D. PAVAO JONATHAN STARR TED YAMAMURA

> WILLIAM M. TAM DEPUTY DIRECTOR

STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT P.O. BOX 621 HONOLULU, HAWAII 96809

STAFF SUBMITTAL

COMMISSION ON WATER RESOURCE MANAGEMENT

October 16, 2013 Honolulu, Hawaii

Scope of Work for the Central Oahu Watershed Management Plan to Update the City and County of Honolulu Water Use and Development Plan

SUMMARY OF REQUEST:

Staff requests that the Commission approve the scope of work for the Central Oahu Watershed Management Plan to update the City and County of Honolulu Water Use and Development Plan.

BACKGROUND:

The State Water Code, Haw. Rev. Stat. Chapter 174C requires the Commission on Water Resource Management (Commission) to implement and utilize comprehensive water resources planning in regulating and managing the State's water resources. The Water Code sets forth requirements for the development and updating of the Hawaii Water Plan (HWP) to guide the Commission in executing its general powers, duties, and responsibilities assuring economic development, good municipal services, agricultural stability, and environmental protection.

The HWP serves as a continuing long-range guide for water resource management. The HWP has five major components (plans): 1) Water Resource Protection Plan, 2) Water Quality Plan, 3) State Water Projects Plan, 4) Agricultural Water Use and Development Plan, and 5) County Water Use and Development Plans (WUDP) for each county. The Water Code mandates that these individual plans be prepared and integrated into a comprehensive "master plan" to provide for effective coordination and long-range planning between state and county agencies.

To fulfill this mandate, the HWP is reviewed and updated on a regular basis. The initial HWP (adopted by the Commission in 1990) addressed issues, including but not limited to, estimated sustainable ground water yields by island, aquifer sectors/aquifer systems, an initial evaluation of current and projected water needs for the State and the Counties.



An updated HWP is essential to effective coordination and integration of State and County actions for sustainable water resource development. The HWP enables the Commission to effectively implement the State Water Code's objectives. Without current information, the HWP's plans will be inadequate and unrealistic. The development of existing and alternative water resources may lead to conflicts that threaten the State's limited water resources. And without current information, the demand projections and proposed strategies to meet the State and Counties' plans to address future water development and resource protection issues will be undermined.

There is consensus among State and County agencies that a comprehensive water resource planning process is needed to address the supply, demand, and conservation of water. Accordingly, the required updates/revisions to the HWP will use an evaluation and assessment process that emphasizes the various planning scenarios incorporating uncertainties, environmental externalities, and public needs into a strategic decision-making process.

Under a comprehensive resource planning approach, all resources will be evaluated including, new/existing supply-side resources, alternative source development (such as wastewater reuse), conservation, alternative rate structures, as well as other demand-side management methods. We will incorporate least-cost planning with supply- side and demand-side management. We will develop coordinated strategies to meet future water demands through greater use of alternative water sources where possible.

STATEWIDE FRAMEWORK:

The Hawaii Water Plan update will address the statutory objectives to promote reasonablebeneficial uses of water; protect existing water rights, traditional and customary Hawaiian practices, the protection and procreation of fish and wildlife, and the maintenance of proper ecological balance, scenic beauty, and recreation.

The Hawaii Water Plan update will also refine current projections, planning principles, and strategies associated with water resource planning and development. These efforts will identify and assess potential new sources, provide more realistic demand projections/forecasts, improve the operation of existing systems, apply screening criteria/analyses, more effectively integrate demand- and supply-side resource options, and improve overall coordination among State and County water use and development plans.

The updating process will facilitate public participation by involving the community, public interest groups, and government agencies in the preparation of the County WUDPs. Stakeholder and/or community groups may be formed to scope issues and address water-related concerns using a collaborative (as opposed to an adversarial) process.

The planning objectives are described in "The Statewide Framework for Updating the Hawaii Water Plan" (adopted by the Commission, February 2000).

The Statewide Framework describes planning elements for each component of the HWP, including the comprehensive update process.

DISCUSSION/ANALYSIS:

In addition to the statutory requirements in the State Water Code, key elements of the statewide framework (regarding the County Water Use and Development Plans) include, but are not limited to:

- 1. Submission of a County-Specific WUDP Project Description for review and approval by the Commission. The Project Description should include:
 - a) Identification of specific issues relating to land use, water use and resource development, and the relative priority of the issues to be addressed in the WUDP update;
 - b) An outline of the County's plan to establish planning objectives and evaluation criteria;
 - c) A description of its public/stakeholder participation and public information program;
 - d) A description of plans to identify: water demand forecasts (and the consideration of future uncertainties) within the hydrologic units identified by the Commission, conservation and demand-side management programs, source development options and any potential impacts to the resource, and the development and integration of resource development strategies;
 - e) A schedule for the County's updates including:
 - 1. Outline the different stages and activities of the County's planning effort;
 - 2. Indicate the approximate times and anticipated duration for public participation activities;
 - 3. Indicate the approximate timeframe for County approval of the WUDP and submission of the WUDP to the Commission for adoption;
 - f) A description about how the State Water Projects Plan and the Agricultural Water Use and Development Plan will be integrated and used in updating the WUDP.
- 2. Each County shall brief the Commission and its staff regarding any planned updates of the County WUDP; and
- 3. Periodic milestone briefings by the County to the Commission will be required as part of the WUDP updating process.

Central Oahu Watershed Management Plan Staff Submittal

Key statutory requirements that should be addressed as part of the WUDP update include:

- 1. Consistency with:
 - a. The Water Resource Protection Plan and Water Quality Plan;
 - b. County land use plans and policies; and
 - c. State land use classification and policies.
- 2. The status of water and related land development including an inventory of existing water uses;
- 3. Future land uses and related water needs;
- 4. Regional plans for water developments including recommended and alternative plans, costs, and adequacy of plans;
- 5. Consultation and careful evaluation of recommendations of concerned Federal, State and County agencies;
- 6. Incorporation of the current and foreseeable development and use needs of the Department of Hawaiian Home Lands; and
- 7. Update and modify the WUDP as necessary to be consistent with its zoning and land use policies.

The statutory and framework provisions described above provide the minimum requirements for updating the WUDP component of the HWP, including the overall-planning framework will be followed by Counties in updating their respective WUDPs. The required elements are consistent with the goals and policy of the State Water Code and the Commission's mandate to manage and protect the State's water resources. The envisioned outcomes, benefits, and products directly support the Commission's duties and responsibilities described in Haw. Rev. Stat. §174C-5 and §174C-31 (Hawaii Water Plan).

CENTRAL OAHU WATER MANAGEMENT PLAN / PROJECT DESCRIPTION:

The City and County of Honolulu proposed an Oahu Water Management Plan (OWMP) framework consistent with these requirements.

On March 17, 2004, the Commission approved the OWMP framework. The OWMP will be updated for Oahu's eight land use planning regions: Waianae, Ko'olauloa, Ko'olaupoko, North Shore, Ewa, Central Oahu, East Honolulu and the Primary Urban Center. The OWMP framework calls for regional watershed management plans to be developed for each of these land use planning regions which will be consolidated into an overall Honolulu WUDP.

March 17, 2004 – Commission approved the scopes of work for the Waianae and Ko'olauloa Watershed Management Plans.

On August 28, 2008 – Commission approved the scope of work for the North Shore and Ko'olaupoko Watershed Management Plans.

March 16, 2011 – Commission *adopts* Waianae and Ko'olauloa Watershed Management Plans

May 16, 2012 – Commission 1) approves scope of work for the Ewa Watershed Management Plan and 2) receives first milestone briefing for the North Shore Watershed Management Plan.

September 19, 2012 - Commission adopts the Ko'olaupoko Watershed Management Plan.

The CWRM staff evaluated the scope of work (i.e., WUDP "Project Description"; Exhibit 1) and the planning elements. The staff determined that the proposed WUDP updating process for the Central Oahu Watershed Planning Area meet the provisions and guidelines set forth in the State Water Code and the Commission's Statewide Framework for Updating the Hawaii Water Plan.

Staff expects the City and County of Honolulu plan will develop a robust evaluation and assessment process, emphasizing the integration of various planning scenarios, and incorporating uncertainties, environmental externalities, and public needs into a strategic decision-making process. We concur with the County's inclusion of a facilitated public participation/education process involving the community, public interest groups, and government agencies (Exhibit 2). The work plan and schedule for the plan development is shown in Exhibit 3.

The County will use a comprehensive planning approach, which facilitates the development and regular updating of a WUDP. This is consistent with the intentions of the county land use plans. The WUDP provides guidance for decision-making on water allocation requests, as well as guidance for the formulation of recommended and alternative strategies for resource development to meet future demand scenarios.

In accordance with the Oahu Water Management Plan Framework, each watershed management plan will be submitted as a separate document. Each watershed plan will support the respective land use plan (e.g., Development Plan or Sustainable Community Plan). In turn, these will be forwarded to the County Council for adoption by ordinance. Following adoption by the County Council, each regional plan will be submitted to the Commission for adoption. After the first iteration of all watershed management plans, they will be consolidated and integrated to address inter-regional issues. This will culminate in an overall island-wide plan and perspective.

ENVIRONMENTAL REVIEW (Haw. Rev. Stat, Chapter 343) :

Hawaii Revised Statutes, Chapter 343 does not apply because this is a planning study. Hawaii Administrative Rule 11-200-5(d) provides:

For agency actions, chapter 343, HRS, exempts from applicability any feasibility or planning study for possible future programs which the agency has not approved, adopted, or funded. Nevertheless, if an agency is studying the feasibility of a proposal, it shall consider environmental factors and available alternatives and disclose these in any future assessment or subsequent statement. If however, the planning and feasibility studies involve testing or other actions which may have significant impact on the environment, then an environmental assessment shall be prepared.

This work is a planning study. It does not involve testing or other actions that will impact the environment. Therefore, HRS Chapter 343 is not applicable to this agency action.

RECOMMENDATION:

Staff recommends that the Commission:

- 1. Approve the City and County of Honolulu's Scope of Work for the Central Oahu Watershed Management Plan;
- 2. Require that the City and County of Honolulu, prior to the commencement of the remaining watershed plans for South Oahu (Primary Urban Center, and East Honolulu), submit proposed scopes of work (i.e., "Project Descriptions") for those regional areas to the Commission for review and approval; and
- 3. Authorize CWRM Staff to participate in meetings and/or workshops, as necessary, with pertinent State and County agencies to facilitate implementation of statutory and framework provisions for updating Oahu's County Water Use and Development Plan.

Respectfully submitted,

William

WILLIAM M. TAM Deputy Director

EXHIBITS: 1. Oahu Watershed Management Plan Scope of Work 2. Stakeholder Communication Plan 2. Work Plan and Schedula

3. Work Plan and Schedule

APPROVED FOR SUBMITTAL:

WILLIAM J. AILA, JR. Chairperson

1099 Alakea Street Suite 2400 Honolulu, HI 96813 Tel: 808-523-8499 Fax: 808-533-0226 www.brownandcaldwell.com

January 10, 2013

Brown AND Caldwell

Mr. Barry Usagawa, PE Program Administrator Water Resources Division Board of Water Supply 630 S. Beretania Street Honolulu, Hawaii 96843

1055.071119.032

Dear Mr. Usagawa:

As requested, Brown and Caldwell (BC) is pleased to submit this proposal to develop the Central Oahu Watershed Management Plan (COWMP).

We have evaluated the effort required and offer this scope of services and fee for your consideration.

Project Understanding

The overall goal of the COWMP is to develop a community-based, environmentallyholistic, economically viable, action-oriented plan for the watersheds of the Central Oahu District that will be in alignment with the State of Hawaii Water Code, the component parts of the Hawaii Water Plan, the Statewide Framework for Updating the Hawaii Water Plan, and Act 152, SLH 2000 - Relating to Watershed Protection.

The COWMP shall also comport with the Hawaii Supreme Court Decision on the Waiahole Ditch Contested Case applying the Public Trust Doctrine and the Precautionary Principle to water resource management, the Oahu Water Management Plan Ordinance 90-62, the Central Oahu Sustainable Communities Plan, the Honolulu Board of Water Supply's (BWS) mission of Water for Life, the Department of Hawaiian Home Lands (DHHL) needs, and other relevant plans and principles, and that will also reflect the ahupuaa management values and principles of the people of the Central Oahu region.

The COWMP will be community-based through extensive discussions and consultation with community leaders, community organizations, landowners, developers, public agencies and officials, and other stakeholders. It will be environmentally holistic through an inventory and analysis of data on the many natural processes and resources that interact within the Central Oahu District, including climate, geology, topography, soils, surface water, ground water, near shore ocean waters, plants, animals, and ecological communities, as well as human uses and impacts. The COWMP will be economically viable through the evaluation of cost effective and optimized water supply options, which leverage new technologies, efficiencies and renewable water and energy resources that meet all demands within reasonable costs. Finally, it will be action oriented by defining and describing projects and programs that can be implemented by the BWS and by other Federal, State, and City agencies, as well as by community groups and organizations.

Scope of Services

The scope of work has been divided into the five (5) phases listed below. This section provides detail for each of the phases and associated subtasks.

- Phase 1 Preliminary Watershed Analysis and Water Demand Methodology
- Phase 2 Preliminary COWMP Development
- Phase 3 Public Review Draft COWMP Development
- Phase 4 Final Draft COWMP Development
- Phase 5 Adoption of COWMP

Phase 1 – Preliminary Watershed Analysis and Water Demand Methodology

The first phase of the COWMP will provide a Preliminary Watershed Analysis that includes background research on physical, biological, and socioeconomic conditions, as well as on watershed resources, ideas, and watershed issues from community stakeholders. Based on the data analysis and stakeholders outreach, Central Oahuspecific Watershed Management Plan sub-objectives and a preliminary methodology for projecting future water demands will be developed.

Subtask 1.1. Work Plan Development

Project guidance documents will be developed and presented for review and approval by BWS and/or the Commission on Water Resource Management (CWRM). These include the following:

- <u>Draft Work Plan and Schedule</u>. A Draft Work Plan and Project Schedule shall be submitted within 30 days of Notice to Proceed. The draft Work Plan and Schedule will be developed in consultation with BWS.
- <u>COWMP Project Description</u>. A COWMP Project Description shall be developed for use and submittal by BWS to the CWRM for approval.
- <u>PowerPoint Presentation</u>. A COWMP Project Description PowerPoint presentation will be prepared for use at the CWRM meeting. BC shall assist BWS in making the presentation.
- <u>COWMP Project Background Sheet</u>. Prepare one-page (double-sided) informational handout. Information shall include: project overview, island map, map of project area, and contact information.

Subtask 1.2. Data Collection and Analysis

BC will gather, organize and analyze available data and reports on Central Oahu from Federal, State, City, and other sources, including but not limited to information on land and water resources, water uses and users, water demand trends, land use, transportation, land ownership, demographics, and population projections. This work may include field reconnaissance of critical watershed areas that may be identified by public agencies and by community members. Data on ground water hydrologic units and surface water hydrographic units will be researched and documented in accordance with the State Water Resource Protection Plan.

Review documents shall include the City and County of Honolulu's "Central Oahu Sustainable Community Plan," the "Central Oahu Watershed Study," which includes the Central Oahu District, relevant components of the Hawaii Water Conservation Plan, and applicable State and City land use plans, area water master plans and environmental reports for major proposed new projects, including the Castle and Cooke Koa Ridge development and the Kunia agricultural park.

Based on the available data and subsequent analysis, BC will develop preliminary forecast numbers for water use and development for four future growth scenarios for Central Oahu, including projections of potable and non-potable water for both urban and agricultural uses, with projections for "low," "mid," and "high" growth scenarios out to the Year 2035. The planning horizon for the fourth scenario, "Ultimate Build Out," will be determined based on review of the Central Oahu Sustainable Communities Plan, various master plans, and discussions with agency stakeholders, and may be approximately 60 to 80 years into the future.

Future water use scenarios will be based on the Department of Planning and Permitting (DPP) population projections and the policies and guidelines of the Central Oahu Sustainable Communities Plan, which was approved by the City Council in 2002.

Future water use scenarios will include the most recent State Water Projects Plan (SWPP) and Agricultural Water Use and Development Plan (AWUDP) forecasts of water requirements, as well as forecasts for Federal and private sector water users.

Subtask 1.3. Develop Preliminary Planning Elements

- Prepare public outreach documents for stakeholder discussion.
- <u>Develop preliminary listing of critical water resources issues</u>. Based on work completed to date, develop a preliminary list of critical water resources issues for Central Oahu, with a focus on issues relating to water sources, water supply systems and future water demands. This effort will include some analysis of climate change impacts on both water demand and supply, and sea level rise.
- <u>Develop draft Central Oahu-specific Sub-Objectives</u>. In consultation with BWS, DPP, and CWRM, draft Central Oahu-specific Sub-Objectives shall be developed that respond to the critical water resources issues outlined by the overall Oahu Watershed Management Plan objectives. Community input and comments shall be solicited and continued refinement of the Sub-Objectives shall be performed in coordination with BWS as part of the Monthly COWMP Working Committee Meetings (described in Subtask 1.4). The overall Oahu Watershed Management Plan objectives include:
 - Promote Sustainable Watersheds;
 - Protect and enhance water quality and quantity;
 - Protect native Hawaiian rights and traditional and customary practices;
 - Facilitate public participation and education, and project implementation; and
 - Meet future water demands at reasonable costs.
- <u>Develop meeting summary Working Paper</u>. Prepare a working paper of 20 to 30 pages that summarizes the ideas and issues and establishes a definition of critical watershed values that were discussed in the stakeholders' meetings and in the initial general community public information meeting.

Subtask 1.4. Meetings

Meetings are a central component of developing a community-based plan that will address local issues. The expected Phase 1 meetings are divided into the following general classifications:

- <u>Small Group/Individual Meetings</u> (40 meetings)
 - Neighborhood Boards

- Additional Stakeholders
- Elected Officials
- Working Committee
- General Community Meetings (1 meeting)

The total number of meetings in Phase 1 shall not exceed forty-one (41) without prior mutual agreement between BWS and BC. Meetings in excess of this scope or a reduction in meetings shall be reimbursed or credited, respectively, as defined in the fee description.

<u>Small Group/Individual Meetings</u>. BC will conduct or assist in a series of individual or "small group" stakeholder meetings. The final list of potential stakeholders shall be developed in consultation with BWS prior to the scheduling of any meetings. For purposes of efficiency, stakeholders may be combined within relevant groups and consultations may be conducted via joint stakeholder meetings. The meetings shall include:

- One (1) meeting each with the following Neighborhood Boards: Wahiawa-Whitmore Village, Mililani Mauka/Launani Valley, Mililani-Waipio, Waipahu, Pearl City Neighborhood Boards for a total of five (5) meetings.
- Up to twenty-one (21) additional stakeholder meetings may be conducted. The stakeholder consultations may include individual or group meetings with the following entities:
 - U.S. Fish and Wildlife (USFW)
 - U.S. Geological Survey (USGS)
 - National Oceanic and Atmospheric Administration (NOAA)
 - U.S. Army Corps of Engineers (ACOE)
 - U.S. Army Garrison
 - Hawaii Coastal Zone Management (DBEDT)
 - Department of Land and Natural Resources (DLNR), Division of Aquatic Resources (DAR) and Division of Forestry and Wildlife (DOFAW)
 - Commission on Water Resource Management (CWRM)
 - Department of Hawaiian Home Lands (DHHL)
 - Department of Health (DOH), Safe Drinking Water Branch and Clean Water Branch
 - Department of Agriculture (DOA) and the Agribusiness Development Corporation (ADC)
 - University of Hawaii (UH), Water Resources Research Center (WRRC)
 - Department of Environmental Services (ENV), Division of Environmental Quality, Storm Water Quality Branch, and Office of Administrative Support, CIP Program and Planning
 - Department of Planning and Permitting (DPP)
 - Office of Hawaiian Affairs (OHA)
 - Castle & Cooke Homes Hawaii, Inc.
 - Hawaii Agriculture Research Center (HARC)

- Kunia Water Association (KWA) and Kunia Water Cooperative (KWC)
- Hawaii Crop Improvement Association
- Dole Foods Hawaii
- Del Monte Fresh Produce Hawaii, Inc.
- Larry Jefts
- Aloun Farms
- Syngenta Hawaii
- Monsanto Hawaii
- Pioneer Hi-Bred International, Inc.
- Aqua Engineers
- Koolau Mountains Watershed Partnership
- Six (6) total meetings with selected elected officials, which may include City council members, State senators and/or representatives.
- Eight (8) total Monthly COWMP Working Committee meetings comprised of designated representatives from BWS, DPP, and CWRM shall be held to review information developed and compiled for Phase 1 work task elements described above.

<u>General Community Meeting No. 1</u>. BC shall schedule, prepare for, facilitate and document one (1) general community meeting during Phase 1 of the project. This will be an informational meeting about the COWMP approach and shall be used to obtain issues and concerns relating to water for the Central Oahu District. The intent is to inform the Central Oahu communities and stakeholders about the scope and schedule for the planning project, and to solicit comments on watershed and water resources issues, problems and needs.

Phase 2 – Preliminary Plan Formulation

The second phase of the project will continue to refine the preliminary planning elements developed in Phase 1.

Subtask 2.1. Refine Preliminary Planning Elements

- Identify and describe General Water Resources Management Strategies that BWS, DPP, other City and State agencies, and private entities could use to address the identified critical water resources issues.
- Test and refine the water use and development methodology for Central Oahu to identify future potable and non-potable water needs and water sources to meet those needs.
- Research and document up to twenty (20) water supply and watershed management projects that address identified critical water related issues and are being actively planned, implemented or championed by the BWS and other public or private entities in the Central Oahu District.
- Identify catalyst projects that could drive the implementation of other related projects and strategies. Relevant projects previously identified as part of other completed plans and studies such as the Central Oahu Watershed Study, U.S. Bureau of Reclamation Statewide Stormwater Study, BWS Reclaimed Water Application Study, Hawaii Ocean Resources Management Plan, Central Oahu

> Non-Potable Water Master Plan, and other watershed management plans (e.g., North Shore and Ewa Watershed Management Plans) may be utilized and incorporated within the draft COWMP.

 Working Paper. Prepare a working paper of 20 to 30 pages that summarizes the ideas and issues that were discussed in the stakeholders' meetings and in the General Community Meetings No. 2 and No. 3, and also preliminarily define critical watershed values and planning principles that were expressed in these consultations.

Subtask 2.2. Meetings

The stakeholder outreach process will be continued with expected meetings divided into the following general classifications:

- Small Group/Individual Meetings (28 meetings)
 - Neighborhood Boards
 - Additional Stakeholders
 - Working Committee
- General Community Meetings (2 meetings)

The total number of meetings in Phase 2 shall not exceed thirty (30) without prior mutual agreement between BWS and BC. Meetings in excess of this scope or a reduction in meetings shall be reimbursed or credited, respectively, as defined in the fee description.

<u>Small Group/Individual Meetings</u>. BC will conduct or assist in a series of individual or "small group" stakeholder meetings. The final list of potential stakeholders shall be developed in consultation with BWS prior to the scheduling of any meetings. For purposes of efficiency, stakeholders may be combined within relevant groups and consultations may be conducted via joint stakeholder meetings. The meetings shall include:

- Two (2) additional Neighborhood Board Meetings with each of the five (5) Central Oahu Neighborhood Boards for a total of ten (10) meetings. For efficiency purposes, Neighborhood Board (and Stakeholder) Meetings may be consolidated and consultations may be conducted via selected Neighborhood Board sub-committees.
- Up to twelve (12) additional follow-up stakeholder meetings to discuss and validate the draft strategies and projects.
- Six (6) total Monthly COWMP Working Committee meetings comprised of designated representatives from BWS, DPP, and CWRM shall be held to review information developed and compiled for Phase 2 work task elements described above.

<u>General Community Meetings No. 2 and No. 3</u>. BC shall schedule, prepare for, facilitate and document the Central Oahu Watershed Management Plan General Community Meetings No. 2 and No. 3.

General Community Meeting No. 2 will be an informational meeting that will focus on the draft findings and forecasts on water use and development for Central Oahu developed in Phase 1.

General Community Meeting No.3 will be an informational meeting that will present the district specific sub-objectives, water supply and watershed management projects and

strategies that address the issues and concerns obtained from the stakeholder outreach process for the Central Oahu District.

Phase 3 – Preliminary Draft and Public Review Draft COWMP Development

The third phase of the project will develop the Preliminary Draft COWMP and the Public Review Draft COWMP.

Subtask 3.1. Draft COWMP Development

Compile Preliminary Draft COWMP. Relevant components of previously completed plans and studies (such as the Central Oahu Watershed Study, U.S. Bureau of Reclamation Statewide Stormwater Study, BWS Reclaimed Water Application Study, Hawaii Ocean Resources Management Plan, and Central Oahu Non-Potable Water Master Plan) may be utilized and incorporated within the draft COWMP. The Draft COWMP will be submitted to BWS, DPP, and CWRM for review and comments.

Prepare Public Review Draft. BC shall address review comments and revise the preliminary draft COWMP and compile the Public Review Draft of the COWMP. The Public Review Draft COWMP shall be disseminated to stakeholders via BWS website.

Subtask 3.2. Meetings

The stakeholder outreach process will be continued with expected meetings divided into the following general classifications:

- Small Group/Individual Meetings (14 meetings)
 - Neighborhood Boards
 - Additional Stakeholders
 - Working Committee
- General Community Meetings (1 meeting)

The total number of meetings in Phase 3 shall not exceed fifteen (15) without prior mutual agreement between BWS and BC. Meetings in excess of this scope or a reduction in meetings shall be reimbursed or credited, respectively, as defined in the fee description.

<u>Small Group/Individual Meetings</u>. BC will conduct or assist in a series of individual or "small group" stakeholder meetings. The final list of potential stakeholders shall be developed in consultation with BWS prior to the scheduling of any meetings. For purposes of efficiency, stakeholders may be combined within relevant groups and consultations may be conducted via joint stakeholder meetings. The meetings shall include:

- One (1) meeting for each of the five (5) Central Oahu Neighborhood Boards, the BWS Board and CWRM, for a total of no more than eight (8) meetings, to present the public review draft of the COWMP.
- Six (6) total Monthly COWMP Working Committee meetings comprised of designated representatives from BWS, DPP, and CWRM shall be held to review information developed and compiled for Phase 3 work task elements described above.

<u>General Community Meeting No. 4</u>. BC shall schedule, prepare for, facilitate and document the COWMP General Community Meeting No. 4 to present the COWMP Public Review Draft to the community/stakeholders. A request for written comments from the five (5) Central Oahu Neighborhood Boards, BWS, DPP, CWRM, and various stakeholder agencies, organizations, and individuals will be made and responses to all comments provided in a spreadsheet and disseminated to all participants via email.

Phase 4 – Final Draft COWMP Development

The fourth phase of the project will develop the Final Draft COWMP.

Subtask 4.1. Prepare Final Draft COWMP

- Compile and review comments received from BWS, DPP, CWRM, the five (5) Central Oahu Neighborhood Boards and various stakeholder agencies, organizations, and individuals regarding the Public Review Draft of the COWMP.
- Coordinate with various stakeholders, as needed, regarding responses to their comments.
- Compile and review important revisions with BWS, DPP, and CWRM and revise the Public Review Draft of the COWMP.
- Compile prefinal draft material for the COWMP and review with BWS, DPP, and CWRM.
- Compile Final Draft COWMP.
- Develop draft strategy and schedule for adoption of the COWMP.
- Develop PowerPoint presentation for the Final Draft COWMP.

Subtask 4.2. Meetings

The stakeholder outreach process will be continued with expected Phase 4 meetings divided into the following general classifications:

- Small Group/Individual Meetings (9 meetings)
 - Additional Stakeholders
 - Working Committee

The total number of meetings in Phase 4 shall not exceed nine (9) without prior mutual agreement between BWS and BC. Meetings in excess of this scope or a reduction in meetings shall be reimbursed or credited, respectively, as defined in the fee description.

<u>Small Group/Individual Meetings</u>. BC will conduct or assist in a series of individual or "small group" stakeholder meetings. The final list of potential stakeholders shall be developed in consultation with BWS prior to the scheduling of any meetings. For purposes of efficiency, stakeholders may be combined within relevant groups and consultations may be conducted via joint stakeholder meetings. The meetings shall include:

- Conduct up to five (5) additional stakeholder consultations, as needed.
- Four (4) total Monthly COWMP Working Committee meetings comprised of designated representatives from BWS, DPP, and CWRM shall be held to review information developed and compiled for Phase 4 work task elements described above.

Phase 5 – Adoption of COWMP

The fifth phase of this project will involve coordination and meetings to assist in the adoption process of the COWMP.

Subtask 5.1. Plan Adoption

Prepare presentation maps, handouts, and PowerPoint presentations for the plan adoption process.

Subtask 5.2. Meetings

The plan adoption process will be expected to require meetings divided into the following general classifications:

- Small Group/Individual Meetings (15 meetings)
 - Neighborhood Boards
 - Additional Stakeholders
 - Working Committee

The total number of meetings in Phase 5 shall not exceed fifteen (15) without prior mutual agreement between BWS and BC. Meetings in excess of this scope or a reduction in meetings shall be reimbursed or credited, respectively, as defined in the fee description.

<u>Small Group/Individual Meetings</u>. BC will conduct or assist in a series of individual or "small group" stakeholder meetings. The final list of potential stakeholders shall be developed in consultation with BWS prior to the scheduling of any meetings. For purposes of efficiency, stakeholders may be combined within relevant groups and consultations may be conducted via joint stakeholder meetings. The meetings shall include:

- Up to the five (5) Central Oahu Neighborhood Board meetings to present the Final Draft COWMP and obtain their endorsements.
- Up to six (6) Briefings on highlights of the Final Draft of the COWMP to:
 - BWS Manager and Chief-Engineer;
 - City Department of Planning and Permitting Director;
 - Selected City Council members;
 - BWS Board; and
 - CWRM.
- Up to two (2) presentations for CWRM adoption:
 - CWRM Public Hearing on the COWMP; and
 - CWRM meeting for adoption of the COWMP.
- Up to three (3) presentations to City Council for adoption.
- Four (4) total Bi-Monthly COWMP Working Committee meetings comprised of designated representatives from BWS, DPP, and CWRM shall be held to review information developed and compiled for Phase 5 work task elements described above.

Schedule

Summarized below is a conceptual schedule for the various project phases.

Total Estimated Time:	30 to 34 months
Phase 5 – COWMP Adoption:	~6 -10 months
Phase 4 – Final Draft of the COWMP:	~4 months
Phase 3 – Public Review Draft of the COWMP:	~6 months
Phase 2 – Preliminary Plan Formulation:	~6 months
Phase 1 – Preliminary Watershed Analysis:	~8 months

We appreciate the opportunity to submit this proposal and look forward working with you on this interesting project.

Please feel free to contact either Ray Matasci or Tom Myers at 523-8499 should you have any questions or comments.

Very truly yours,

BROWN AND CALDWELL

Thomas 7. Myers Thomas T. Myers, PE Project Manager D M. Mateur:

Raymond N. Matasci, PE Vice President, Hawaii Operations

Attachment: (1)



Technical Memorandum

1099 Alakea Street, Suite 2400 Honolulu, HI 96813 T: 808.523.8499 F: 808.533.0226

- Prepared for: Barry Usagawa, Board of Water Supply (BWS)
- Project Title: Central Oahu Watershed Management Plan (COWMP)
- Project No.: 144702
- Subject: Stakeholder Communication Plan
- Date: September 26, 2013
- Prepared by: Susan Mukai, Brown and Caldwell

EXHIBIT 2

Section 1: Major Stakeholders

Clients

- Honolulu Board of Water Supply (BWS)
 - Contact: Barry Usagawa
 - Role: Project Sponsor. BWS will oversee the details of development of the plan, provide guidance on plan process and direction, attend major meetings, and review all submittals.
- Department of Planning and Permitting (DPP)
 - Contacts: Kathy Sokugawa, Randy Hara, Matt Higashida, Steve Young
 - Role: Project Co-Sponsor. DPP will provide additional overview guidance for the plan and ensure compliance with existing City plans, policies, and rules. DPP will submit the COWMP to the City Council for adoption as an amendment to Chapter 30, ROH, Water Management.
- Commission on Water Resource Management (CWRM)
 - Contacts: Lenore Ohye, Neal Fujii, Jeremy Kimura
 - Role: Hawaii Water Plan oversight and guidance. CWRM will provide a review of the planning process, major milestones, data analysis, and plan recommendations. CWRM approves the COWMP to incorporate it into the Hawaii Water Plan, Chapter 174C-31.

Neighborhood Boards

- Wahiawa-Whitmore Village (NB No. 26)
 - Contact: Jeanne Ishikawa
- Mililani Mauka-Launani Valley (NB No. 35)
- Contact: Dean Hazama
- Mililani-Waipio (NB No. 25)
 - Contact: Dick Poirier
- Waipahu (NB No. 22)
 - Contact: Rito Saniatan
- Pearl City (NB No. 21)
 - Contact: James "Kimo" Pickard, Sr.

Large Landowners/Developers

- Castle & Cooke Homes Hawaii, Inc.
- Dole Foods Hawaii
- Del Monte Fresh Produce Hawaii, Inc.
- Larry Jefts
- Aloun Farms
- Syngenta Hawaii
- Monsanto Hawaii
- Pioneer Hi-Bred International, Inc.
- Koolau Mountains Watershed Partnership

Brown AND Caldwell

Others TBD

Water Purveyors

- BWS
- Agribusiness Development Corporation
- Others TBD

Large Water Users

- Various golf courses
- Others TBD

Government Agencies

- U.S. Army Corps of Engineers (ACOE)
- U.S. Army Garrison
- U.S. Fish and Wildlife (USFW)
- U.S. Geological Survey (USGS)
- National Oceanic and Atmospheric Administration (NOAA)
- Department of Agriculture (DOA)
- Department of Environmental Services (ENV), Division of Environmental Quality, Storm Water Quality Branch, and Office of Administrative Support, CIP Program and Planning
- Department of Hawaiian Home Lands (DHHL)
- Department of Health (DOH), Safe Drinking Water Branch and Clean Water Branch
- Department of Land and Natural Resources (DLNR), Division of Aquatic Resources (DAR) and Division of Forestry and Wildlife (DOFAW)
- Hawaii Coastal Zone Management (DBEDT)
- Office of Hawaiian Affairs (OHA)
- Department of Planning and Permitting (DPP)
- Agribusiness Development Corporation (ADC)
- CWRM
- Others TBD

Other Entities and Organizations

- Hawaii Agriculture Research Center (HARC)
- University of Hawaii (UH), Water Resources Research Center (WRRC)
- Aqua Engineers
- Hawaii Crop Improvement Association
- Kunia Water Association (KWA)
- Kunia Water Cooperative (KWC)
- Others TBD

Public At-Large

Individuals who are interested in water resource issues and planning who are not members of existing entities or organizations will have the opportunity to provide input on the COWMP.

Section 2: Communication Plan

Clients

- Monthly coordination meetings with the working group that includes BWS, DPP, and CWRM.
- Working papers will be submitted and reviewed at the end of Phases 1 and 2.
- BWS participation in Neighborhood Board meetings in Phase 1.
- Participation in community meetings.

Neighborhood Boards

- Present and obtain feedback on the planning process, water resource issues, and potential projects.
- Invitation to participate in the community meetings.
- Present the Draft COWMP to the Neighborhood Boards in Phase 3 and receive feedback.
- Request endorsement of the Final COWMP in Phase 4.

Large Landowners/Developers

- Interviews with select landowners/developers to determine their water resource issues, status of developments, projected build out, and verify water use and projections.
- Additional phone calls, emails, and/or meeting may be necessary.
- Invitation to participate in community meetings.

Water Purveyors

- Interviews with select water purveyors to determine the capacity of water systems, types of uses, volume
 of use, projected future use, water resource issues, and plans for meeting demands (additional source
 and capacity development), including sizing, timing, and costs.
- Additional phone calls, emails, and/or meetings may be necessary.
- Invitation to participate in community meetings.

Large Water Users

- Interviews with select large water users to determine their water resource issues, types of uses, volumes
 of use, projected future use, and water resource issues.
- Additional phone calls, emails, and/or meetings may be necessary.
- Invitation to participate in community meetings.

Government Agencies

- Interviews with select government agencies to identify land use trend and related water resource issues.
- Additional phone calls, emails, and/or meetings may be necessary.
- Invitation to participate in community meetings.
- BWS and CWRM coordination of the Central Oahu Watershed Management Plan with the CWRM Nonpotable Water Study.



Other Entities and Organizations

- Interviews with select entities and organizations to identify values and concerns relating to water resource issues.
- Additional phone calls, emails, and/or meetings may be necessary.
- Invitation to participate in community meetings.

Public At-Large

- Community Meeting #1 (Phase 1)
 - Informational meeting about the COWMP approach and shall be used to obtain issues and concerns relating to water for the Central Oahu District. The intent is to inform the Central Oahu communities and stakeholders about the scope and schedule for the planning project, and to solicit comments on watershed and water resource issues, problems, and needs.
- Community Meeting #2 (Phase 2)
 - Informational meeting focusing on the draft findings and forecasts on water use and development for Central Oahu.
- Community Meeting #3 (Phase 2)
 - Informational meeting that will present the district-specific sub-objectives, water supply and watershed management projects and strategies that address the issues and concerns obtained from the stakeholder outreach process for the Central Oahu District.
- Community Meeting #4 (Phase 3)
 - Present the COWMP Public Review Draft to the community/stakeholders. A request for written comments from the five Central Oahu Neighborhood Boards, BWS, DPP, CWRM, and various stakeholder agencies, organizations, and individuals will be made and responses to all comments provided in a spreadsheet and disseminated to all participants via email.
- Memos on the discussion and comments received at each community meeting will be posted on the BWS website.

This page intentionally left blank.

									CE	ITRAL C	W UHAC	ATERS	HED MA	NAGEN	AENT PL	AN SCH	EDULE						_											
		1	2 1	3	Phase 4		6	7 1	8	9	30	Phase 11	se 2 12	13	14	15	26	Pha: 17	18	19	20	21	Phase 4	23 2	1 25	26	27	28	1 29	30	31	32	33	34
Phase/Subtask	Action Items/Meetings	1019-022	6.1916-71	Sep-13	12.000	10.00/10	-11/25	2010 21	10/07/20	Stan 17	annister.	M6523/95	0.000000	105203	1000000	16231	02/2/20	いたけた	Charles .	D-4004	In COLUMN 1	140510200 -024	10000	1000 (653	165 XXXX	12 1000	761 mil236	ST STUDE	5 States	10.00	5 Jan-16	1032501	2522.20	11640
Phese 1	Preliminary Watershed Analysis and Water Demand Mathodology														825		-							_										
	Work Plan Development						,																											
	BWS Draft Work Plan and Project Schedule for the COWMP				_																					8	\perp	\perp				ļ!		
Subtask 1.1	CWRM Briefing and Approval of COWMP Project Description																				$ \rightarrow $				_		\perp				<u> </u>	<u> </u>	~	
	COWMP Project Background Sheet (PBS)		的而且									=													\perp		_		4			ļ	\square	
	COWMP Draft Table of Contents			2																										\perp		1		
	Develop stakeholder survey form for CWRM/BWS data collection																								+			+				ļ	ļ	11
	Data Collection and Analysis Develop Draft Water Demand Methodology (in consultation with BWS, CWRM, and		경종원			_	_										=								+	+	-		-	-			$\left - \right $	
	DPP) Quantification of current potable water supply and demands - low, mid, high, and uttimate					100												12				-					-		1					-
Subtask 1.2	Constitution of future potable water supply and demands - low, mid, high, and ultimata							關鍵	-																	1	-	\mp		1				
	Quantification of current agricultural (Ag) water supply and demands					_	No.		15.00							-						_	+	-				+		+	-			
	Quantification of future Ag water supply and demands	\downarrow					-12 (bis.d)	10111	1221														_	_	_					+	<u> </u>	+	┟───┦	
	Future Water Use Scenarios - low, mid, high, and ultimate							19495	100					L																<u> </u>	1	1		
	Develop Preliminary Planning Elements			martfall										1		_				_		Í			-			<u> </u>		- <u>-</u>	<u> </u>	<u> </u>	<u> </u>	
	Prepare public outreach documents for stakeholder discussion	$ \rightarrow $	16.20	認定的		-															1			-	+					+	+	+	<u> </u>	
Subtask 1.3	Develop Central Oshu-specific sub-objectives				5165										 		ļ	<u> </u>						_	+	_				+	+	<u> </u>	<u> </u> '	
	Develop preliminary listing of critical water resource issues					(A)A						ļ		=		<u> </u>								-	+	+			<u> </u>	+	<u> </u>		<u> </u>	
	Meeting Summary Working Paper								12534							1												1						
	Meetings	1	·		r - 1	-	Diato-							1		_										_				—		T	1	
	Neighborhood Board (NB) Meetings					18 In	SVSRA	1994			· · · · ·															+	—	+		-	+	+	<u> </u>	
Subtask 1.4	Working Committee Meetings (with BWS, CWRM, DPP)	243.6	Sec.	말을통	1000	1200	2623	ice:n						-									\rightarrow	_		+	—	+	+		+	—	<u> </u> '	
	Stakeholder Mextings		<u> </u>		1955年	SES.	如此						<u> </u>					<u> </u>								_	+	_	+	+	+			
	Community Meeting No. 1	_				1011/04	Barris Line	1982			ļ			ļ									\rightarrow			_	+	—			+	—	<u> </u>	
	Elected Official Meetings					in st		2001 1	Silts									1			_				1.									
Phase 2	Preliminary Plan Formulation													-														12						
	Refine Preliminary Planning Elements Identify and describe general water resource management strategies that could be	1	1			_	~			100.00	1000	11:31			[-					-							Ť	Τ_	Τ	T		
	used to address the identified critical water resource issues			-					_	11000	10.000 (CC)	100	1969	3778			<u> </u>										+	+		1	1	1		
Subtask 2.1	Test and refine the water use and development methodology Research and document up to 20 water supply and watershed management	+							-	Street.	States and		2, 33	Sector									10			-	+		-	+	1	1	<u> </u>	
	projects that address identified critical water related issues identify catalyst projects that could drive the implementation of other related	+			$\left \right $		-	12		States of the	CAREAR CONTRACT	19670	NEW	1200	-	-		+		-					+	-			+	+	+	+		
	projects and strategies Working paper - 20-30 pages that summarize the ideas and issues discussed in	+							-	EVILE	ST.M.	DRUG S	6 Martin	Vinse)								\rightarrow				+	+-		+	+-	+	+	+	_
	stakeholder meetings and in general community meetings								L			1	l		2455	L	1	1	1										1				<u> </u>	<u> </u>

EXHIBIT 3

									CENTRA	LOAHU	WATERS	HED MA	NAGEN	AENT PL	AN SCH	EDULE		_																_
		1	1 2	3		50 1 S 1	6]	7	1 9	1 10	Ph	12 1	19	14	15	16 1	17	198 3	19 1	20	21	Phese 22	4 23 1	24	81	26	27 1	28	Phase 29	30	31	32 1	33	34
		525365	670353	1715-2523	PLENDER.	2010/02	1222016-014	12 CT	b-14 Mar-1	ter attact	3,165,223	1982498	10,535	The concern	ADAMAM!	0.51 a.Or	10 10 1 Aug	1.2.4 1.111	NOV WHERE	10.04	122000000	40451104 H	W 2022 W	10010210-	24070404	CH. NO. 1	CARLES IN	A	5 20 AL A 1	NG187546 J	Jan-16 F	KONDAL DAY	ATTRONT DAT	9624.0
Phase/Subtask	Action Items/Meetings	Jul-13	Aug-13	5ep-13	00-13	Nov-13	Dec-13	Jan-14 Fe	0-14 MBP-1	e Apr-14	£ 1489-24	201-14	JUI-14	AC 914	26b-14	00.14	1009-14	Dec te	Am-12	H0-15	M81-15	MDI-12 [1	-15 J	PUR-13	10+13 1	10 15	380-15 [C	ia-13 [101-13	AC-13	7001-200 1 1	00-10 N	107-10 A	8-10
	Meetings	<u> </u>	1		1			Т	STEEL	1.0.9.50	STACK!		_			[]		<u>г т т</u>				T			T			1						_
	Neighborhood Board (NB) Meetings - No. 2		 						1000	1348	and the second		1000	encould									\rightarrow	\rightarrow					_		\rightarrow	-+	\rightarrow	_
	Neighborhood Board (NB) Meetings - No. 3								_	Math code				6.227							1	\rightarrow	_	-		_				\rightarrow	\rightarrow	\rightarrow	\rightarrow	
Subtask 2.2	Stakeholder Meatings		_							(四國)		and the	調整														_							
	Working Committee Meetings								102			25 AU	No. 191	dia.		31																	-	
	Community Meeting No. 2	-									中的						240																	
	Community Meeting No. 3			[_						
	Preliminary Dreft and Public Review Dreft CDWMP Development				-											<u> </u>		·													-			_
Phase 3								-													-													
Subtask 3.1	Draft COWMP Development	r—		<u> </u>	Т					1	1				1223	2834																T		_
300(83K 3.1	Compile Preliminary Draft COWMP.	╂───		<u> </u>						+					CONSERV.	3658.20		WARES	- Bates					\rightarrow						-+		\rightarrow		
	Prepare Public Review Draft	1	L							1		1						36.3	2023	_						1				ł	L			_
	Meetings			r	1		<u> </u>				1					COLOR DA	15-JUN	10000				T				1	- 1	1		<u> </u>				—
	Neighborhood Board (NB) Meetings - No. 4	ļ	L			ļ		E								(Fall)			walker.					=						\rightarrow	\rightarrow	\rightarrow		
Subtask 3.2	Stakeholder Meetings	L	ļ				=										200	3675	TRAME -															
	Working Committee Meetings	_													123	10201	NACE NO.			潮的														
	Community Meeting No. 4																						-											
Phase 4	Final Draft COWMP Development																										_	_		-				
	Prepare Rnal Draft COWW																																_	
	Compile and review comments received from BWS, DPP, CWRM, NBs, and			Γ						T											建药													
Subtask 4.1	stakeholders regarding the Public Review Draft of COWMP Compile and review important revisions with BWS, DPP, and CWRM and revise the		+		-																	192											-	
	Public Review Draft of the COWMP Compile prefinal draft material for the COWMP and review with 8WS, DPP, and							-		+	1				- C.								192									\neg		
	CWRM					-					+												CROWDED-	Sub3								-+		-
	Compile Final Draft COWMP	I	I						_		1		I	I			L							the states	1	l					L			-
	Meetings		T	-	1	1	r – r			-		Т	1	1		11		T			125 102	(max)	CONTROL OF		1				1					
Subtask 4.2	Stakeholder Meetings	<u> </u>		ļ		<u> </u>				<u> </u>			<u> </u>		 		<u> </u>				0.0016	ALCONST.	COLCON.	121712				_			·ł		\rightarrow	
	Working Committee Meetings]			L					No.		Star .	BEWER							<u> </u>			
Phase 5	Adoption of COWMP																																	
Subtesk 5.1	Plan Adoption				_												100	_			-													
3000458 3.1	Prepare presentation maps, handouts, and PowerPoint presentations for the plan adoption process																			L						12:01	FAG I	制度		建造	\square			
	Meetings																			12														
					Τ		[]]																	I	=		Sam.							
	Neighborhood Board (NB) Meetings - No. 5		1	1	1										—					1						ST.S.	100							
Subtask 5.2	Working Committee Meetings (4) Briefings: BWS Manager and Chief-Engineer, DPP Director, Selected City Council				1			-+-		+	1			1				1		1							6825B	in the	Serve.	_			-	
	Members, 8WS Board, CWRM		+	+	+	-		-+		+	+		-			+	-												GEN.	58.5	1928	1200	9866	能
	CWRM Adoption Process: CWRM Public Hearing and CWRM Adoption Meeting			+	-		-						-					+			 		-		-				APRIL P	Self-ce	MARKED I	NUE BER	10250 1	
	City Council Adoption Process	L	1		1						_1	1	I			1	I			1									NUMPER	4:50X2	10.129-01	andica	406656	6161