



**BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT**

375 – 11th Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

**AGENDA
Sustainability/Energy Committee
Tuesday, January 9, 2018
9:00 a.m.
Training Resource Center**

(Committee Members: Directors Young {Chair}, Katz and Linney)

ROLL CALL:

PUBLIC COMMENT: The Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

DETERMINATION AND DISCUSSION:

1. Renewable Energy Update (Briggs)
2. Integrated Pest Management Program Update (Chan)

ADJOURNMENT:

Disability Notice

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Document Availability

Materials related to an item on this Agenda that have been submitted to the EBMUD Board of Directors within 72 hours prior to this meeting are available for public inspection in EBMUD's Office of the Secretary at 375 11th Street, Oakland, California, during normal business hours, and can be viewed on our website at www.ebmud.com.

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: January 4, 2018

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *ARC*

FROM: David A. Briggs, Manager of Water Operations *B*

SUBJECT: Renewable Energy Update

INTRODUCTION

The District currently has 1.5 megawatts (MW) of photovoltaics (PV) installed at various facilities. Some are District-owned and operated, and others are managed under a Power Purchase Agreement (PPA). This memo provides an update on the District's efforts to develop a 5 MW PV project on the District's East Bay watershed lands. This information will be discussed at the January 9, 2018 Sustainability/Energy Committee meeting.

DISCUSSION

The District has selected three potential sites on the District's local watershed property to develop a 5 MW PV project. The three sites are the Duffel property in Orinda, the Shutemann property north of Lafayette, and the Navy Flat property adjacent to the Castro Valley Christmas Tree Farm (see attached location map). The project would be developed under Pacific Gas and Electric's (PG&E's) Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) tariff. The tariff allows local governments to develop renewable generation projects up to 5 MW in size and transfer the energy credits to up to 50 benefitting accounts. Implementing a project this large would greatly advance the District's goal to be carbon-free for indirect emissions by 2040. The project would offset an estimated 2,200 metric tons of greenhouse gas emissions, or 13 percent of the District's 2016 indirect emissions, while providing an estimated net present value of \$13 million assuming a 30-year project life.

PG&E's RES-BCT tariff program has a cap of 105 MW and projects representing approximately half of this cap have already been implemented or are actively under review. Therefore, participation in this program requires timely implementation. The District has submitted interconnection applications for all three proposed sites and is drafting a Request for Proposal (RFP) for consultant services to complete the necessary California Environmental Quality Act (CEQA) review. The CEQA work is expected to take two years and cost approximately \$500,000 to complete. In total, the District may spend an estimated \$750,000 in development costs prior to confirming admittance into the RES-BCT program.

To accelerate implementation and lower costs, staff recommends development under a PPA rather than a direct purchase/District ownership approach. Historically, the District has experienced better overall economic return with PPAs since PPA investors can take advantage of federal and state tax credits, effectively lowering costs (these credits are not available to the District for District-owned projects). The PPA will include an option to purchase the project following a fixed term of operation, usually five or six years.

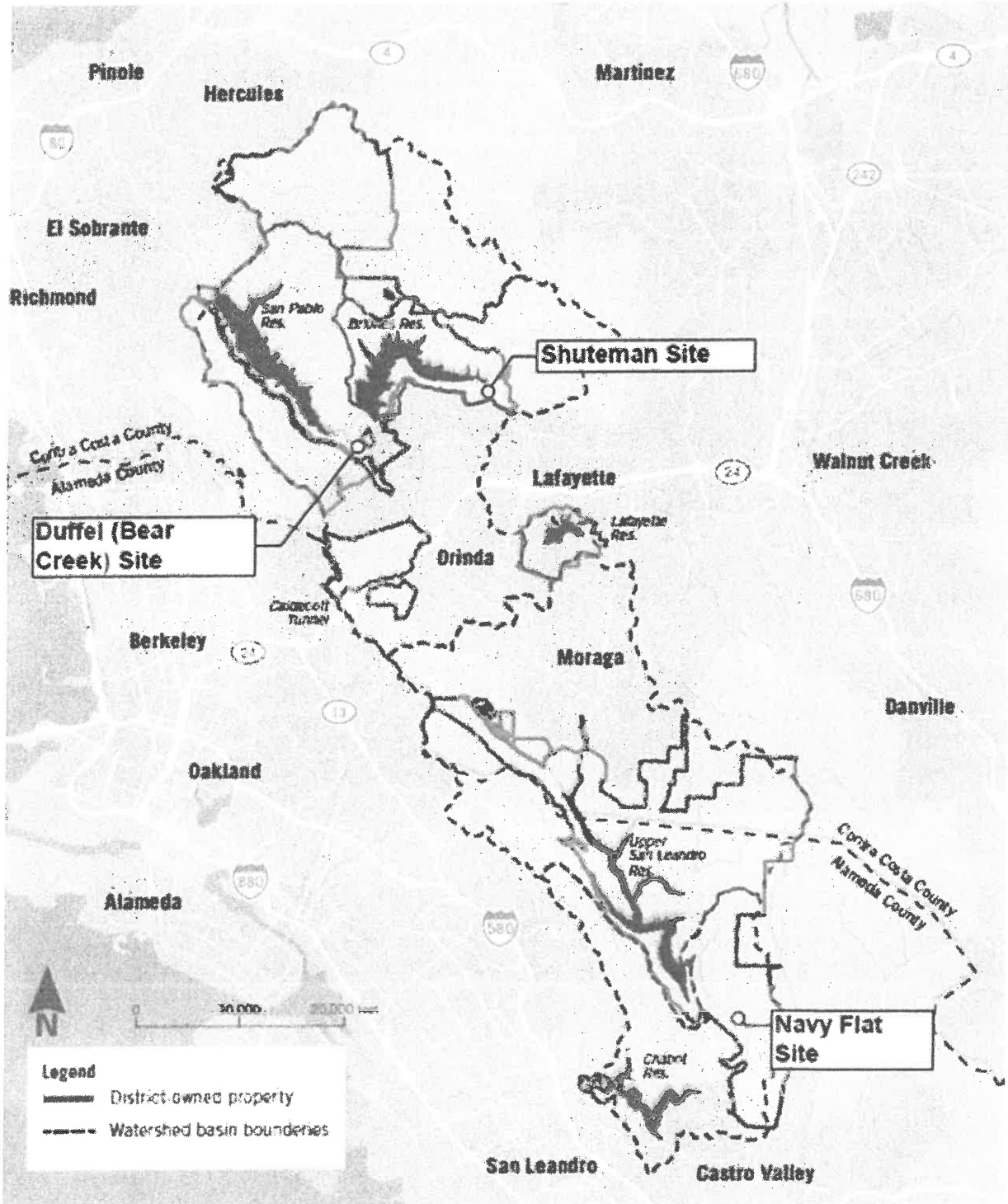
NEXT STEPS

With concurrence from the Sustainability/Energy Committee, staff will bring a professional service contract for CEQA environmental review of the three potential sites to the Board for consideration in March 2018. In parallel, PG&E will quantify the interconnection costs for each site. By summer 2018, staff will have the information needed to select a preferred site and will solicit proposals for a PPA. Staff will update the Sustainability/Energy Committee in late 2018 after project proposals are reviewed.

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Attachment

PV Systems Location Map



EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: January 4, 2018

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *ARC*

FROM: Clifford C. Chan, Acting Director of Operations and Maintenance *CCC*

SUBJECT: Integrated Pest Management Program Update

INTRODUCTION

The District developed an Integrated Pest Management (IPM) program in the mid-1990s to address pest problems within District property while minimizing risks to people and the environment. At the July 25, 2017 Sustainability/Energy Committee meeting, staff presented an overview of the program and planned enhancement actions. This memo summarizes the efforts completed since July 2017 and specific recommendations from an expert third-party review. These items will be discussed at the January 9, 2018 Sustainability/Energy Committee meeting.

DISCUSSION

IPM is a comprehensive, systems-based pest management process that involves determining appropriate control methods based on the pest and site-specific conditions. IPM focuses on managing pests with minimum impact to human health, the environment, and non-target organisms by requiring a variety of non-pesticide control methods be considered in addition to pesticide controls.

The District has a written IPM plan to address a broad range of issues at District watershed lands, rights-of-way, and operating and administrative facilities, which cover a wide area including the District's service area, a hundred miles of rights-of-way, and 56,000 acres of watershed lands in the East Bay and Upcountry as shown on the attached map (Attachment 1). The plan is used by various District departments for employee and public safety, infrastructure management, fire suppression, regulatory compliance, flood control, habitat management, and aesthetics. Since July 2017, staff has completed efforts to improve the program as described below.

Third-Party Review

The District contracted with Blankinship and Associates (Blankinship) to perform a third-party review of the District's IPM program. A summary of the report is attached (Attachment 2). The Blankinship team includes experts in IPM, aquatic resource management, pesticide application, ecological risk assessment, and toxicology. They performed a comprehensive evaluation of the District's IPM program including a detailed survey and interviews with District staff that

practice IPM, and observation of pesticide applications in the field. The report indicates the District has a well-developed program, implemented by staff knowledgeable in a range of pest management concepts given limitations in resources. Blankinship made several recommendations for program enhancements that fall into the following broad categories:

- Enhanced training
- Improved records management
- Engagement of key experts, biologists, and the public
- Increased standardization for decisions and activities (i.e., procedures and guidance documents) to promote consistency across work units with similar demands

The report has been posted on the District's website at www.ebmud.com/about-us/sustainability.

Records Management

Staff piloted documenting the decision process for weed management at four facilities in the East Bay. These documents describe the management goals, pests identified, monitoring practices, specific sensitivities (e.g., endangered species or proximity to public trails), and cultural, physical, biological, and chemical controls considered. Staff will adopt this practice and expand it to cover all East Bay facilities. The evaluation of all East Bay facilities is expected to be completed by the end of 2018 for all types of pests.

Staff is developing a process and database to document pest management data (e.g., strategies implemented, pesticides applied, effectiveness, etc.) electronically to support regulatory reporting and data analysis. This data will be used to evaluate the effectiveness of specific pest management strategies. It is anticipated this database tool will be developed by the end of fiscal year 2018.

NEXT STEPS

Several steps are planned to improve the District's IPM program including:

- Incorporating recommendations from the Blankinship report and reviewing the IPM plan.
- Enhancing and standardizing training for staff managing pests.
- Completing IPM decision documents for East Bay facilities by the end of 2018.
- Implementing an electronic data management tool by the end of fiscal year 2018.
- Restarting in January 2018 the annual workshop with District stakeholders to discuss lessons learned, share successful strategies, and evaluate new techniques and products.

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Attachments

Amador County

Calaveras County

12

Martinez

Pittsburg

4

Antioch

Oakley

Bixler

Brentwood

Stockton

5

Berkeley

24

Orinda

Walnut Creek

Creek

Oakland

13

Alameda

San Leandro

880

San Ramon

Dublin

580

Livermore

680

Pleasanton

Hayward

92

238

120

99

33

205



84

Legend

Mokelumne Aqueducts Right-of-way

Service Area Operating and Administrative Facilities

Service Area Watershed Land

Mokelumne Watershed Land

Summary of Blankinship and Associates Report

Program Review Process

Blankinship & Associates completed an evaluation of the District's IPM program by considering factors such as typical pests, product cost and efficacy, application sites and surrounding habitats, available resources, treatment efficacy, human health and safety, and environmental impacts. The District's IPM Program was evaluated in four ways:

- Meeting with District IPM staff and completing a questionnaire to gather feedback on the process.
- Conducting interviews with each work unit to gain insight to survey responses and gather additional information.
- Observing two separate pesticide applications in the field to evaluate methodology and approach.
- Compiling and comparing IPM policies and practices from other agencies similar to the District.

Program Recommendations

Recommendations from the report fall into four broad categories.

1. Enhanced Training
 - Standardize training for staff with pest management responsibilities.
 - Conduct annual training to review IPM standards, new products and methods, and best practices.
2. Enhanced communication with key experts
 - Use Pest Control Advisors and biologists as a resource.
 - Improve communication with the public.
3. Improved records management
 - Maintain summaries of identified pests in each management area.
 - Develop decision-making criteria for selection of pest control techniques.
 - Establish a streamlined reporting process for logging and archiving pest management activities and efficacy.
4. Increased standardization for decisions and activities
 - Promote consistency across work units with similar demands.
 - Develop a simple set of District-level guidance documents that incorporate control technique selection flow charts or decision trees.
 - Track suggested modifications to the program and consider incorporating them into an updated guidance document.

