

City of Santa Barbara

**CREEKS RESTORATION AND WATER QUALITY IMPROVEMENT
CITIZENS ADVISORY COMMITTEE**

Regular Meeting

Wednesday, July 19, 2006

MINUTES

The regular meeting of the Creeks Restoration and Water Quality Improvement Program Citizens Advisory Committee was called to order by Chair DeVoe at 5:38 p.m. at the Parks and Recreation Department Conference Room.

1. CALL TO ORDER

2. ROLL CALL

Members Present

Myfanwy DeVoe (Chair)	Environmental/Land Use
Daniel E. Hochman	Hotel/Lodging Industry
Michael Jordan (Vice Chair)	Business Community
Bruce Klobucher	Ocean Users
David Pritchett	Environmental/Land Use
George Weber	Environmental/Land Use
Daniel Wilson	Community at Large

Members Absent

Jeff Phillips	Environmental/Land Use
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Liaison Representatives Present

Rob Almy	County Project Clean Water Liaison
Iya Falcone	City Council Liaison
Beebe Longstreet	Park and Recreation Commission

Liaison Representatives Absent

John Jostes	Planning Commission Liaison
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Staff Present

Jill E. Zachary	Creeks Restoration/Clean Water Manager
Jill Murray	Creeks Water Resources Specialist
Jessica Scheeter	Creeks Outreach Coordinator

3. APPROVAL OF MINUTES OF THE SPECIAL MEETING OF MAY 10, 2006.

ACTION:

Moldaver moved, seconded by Hochman, and passed 7/0 that the Committee approve the minutes of the regular meeting of May 10, 2006. Moldaver abstained.

4. APPROVAL OF MINUTES OF THE SPECIAL MEETING OF MAY 24, 2006.

ACTION:

Moldaver moved, seconded by Hochman, and passed 5/0 that the Committee approve the minutes of the regular meeting of May 24, 2006. Hochman, Jordan, and Moldaver abstained.

5. INTRODUCTION OF NEW COMMITTEE MEMBER

Mr. Lee Moldaver said that he is honored to participate in the Committee.

6. AGENDA ADJUSTMENTS

None.

7. PUBLIC COMMENT

Mr. Eddie Harris, Urban Creeks Council, recommended that the Committee research the use of a remote controlled, mechanized, and floating device would pick up trash, debris, and organic materials while being operated from the shore.

8. ANNOUNCEMENTS

Mr. Hochman stated that earlier in the day, with several Committee members in attendance, Ms. Zachary presented the accomplishments of the Creeks Division over the past five years to the Greater Santa Barbara Lodging Association.

9. BUSINESS ITEMS

a. Education and Outreach Program Update

Ms. Scheeter, Creeks Outreach Coordinator, gave a brief update on the Creeks Division Outreach Program. Ms. Scheeter said that she and Ms. Zachary attended a conference on social marketing and she would be sharing ideas stemming from that conference.

Ms. Scheeter said that the Division is currently airing the "Toy Boat" Public Service Announcement (PSA). This PSA aims to help community members make the "storm drain connection to the ocean." She said that similar radio PSAs are also airing.

Ms. Scheeter said that two capital projects are currently under construction and the outreach related to these projects includes signage, resident mailings, e-newsletter updates, and website project updates.

Ms. Scheeter said that the Division has participated in a number of community events since January 2006 including the 1st Annual Steelhead Festival, *Steelhead, Creeks, and Water Quality* Community Forum, Earth Day, Big Dog Canine Festival, and the Kids Creek Festival. She said that two of the four Summer Creek Clean-ups have taken place and the San Roque Creek Stewards Project at Stevens Park is in the planning stage. Ms. Scheeter said that the Division intends to partner with the Santa Barbara Botanic Gardens in order to teach homeowners about riparian and other native plants appropriate for yards. She also stated that more than 4,000 students were reached through the Creeks Kids Series and in-class watershed model presentations.

Ms. Scheeter said that the Division is in the process of assessing and evaluating current water quality improvement messages to determine if they might help people to overcome the barriers stopping them from changing their behavior. She stated that the Division will also be working with a bilingual consultant with a marine science, marketing, and business outreach background in order to better tailor the messages for the Latino community. She added that the City is also partnering with the County of Santa Barbara and the City of Goleta to air the Spanish language version of the "Toy Boat" PSA on Univision.

Committee discussion:

Mr. Moldaver stated that there are several neighborhood associations in the Steven's Park area. He recommended that the City work with City College's Adult Education program to establish a certification program similar to the Green Gardener program. Mr. Moldaver recommended that the Division work with Olivia Rodriguez of the Hispanic Chamber of Commerce. He also recommended partnering with Our Lady of Guadalupe church. Mr. Moldaver recommended offering free passes on the Condor or to the Ty Warner Sea Center as an award that simultaneously reinforces the message of why a clean ocean is important.

Mr. Wilson said that he supports the collaboration among the City of Santa Barbara, City of Goleta, and County of Santa Barbara.

Mr. Jordan stated that the e-newsletter is a valuable tool used by the Creeks Division. He mentioned that it is issued once a month and includes creek related topics, project updates, and volunteer opportunities. Mr. Jordan also said that the e-newsletter is designed to allow participants to "opt-out" at their discretion. He said that interested community members can sign-up for the e-newsletter at www.sbcreeks.com, on the Events and Outreach page.

Mr. Klobucher said that consistency is important in any type of outreach,

advertising, or message. He recommended that overall consistency remain as outreach elements become refined so that the public can make the connection between clean water and creeks. He said that he is excited about the community-based social marketing approach.

Mr. Pritchett asked if the Cox network was only in English. He asked how often the PSA air.

- Ms. Scheeter responded that the Cox network has one Spanish language television station. She said that the City receives a non-profit match so the frequency of airings is doubled.

Ms. DeVoe stated that she supports partnering with the Santa Barbara Botanic Garden and eventually making visits to private residents to reach out to homeowners.

b. Phase II Report – UCSB Microbial Source Tracking Study

Ms. Murray, Creeks Water Resource Specialist, introduced the UCSB Microbial Source Tracking Study. She said that the purpose of this project is to determine the presence, origin, and fate of human waste in the creek environment. She stated that the purpose of Phase I was to test the methods to be used, and the purpose of Phase II is to identify and track the sources of pollution.

Ms. Murray stated that the rationale for this project was based on the high levels of indicator bacteria found in creeks and the inability to correlate indicator bacteria concentrations with a health risk. She said that the source of the indicator bacteria concentrations were also unknown.

Ms. Murray stated that indicator bacteria tests infer the presence of human waste, which infers a risk to human health. She said these inferences lead to beach warnings although indicator bacteria do not confirm that pathogens are present.

Ms. Murray stated that during Phase I when the methods were tested, both methods were found to be effective. She said that the Community Profile technique is used to discriminate among fecal sources while the Bacteroides PCR detects sewage to 0.01% dilution. With regard to the Phase II research, Ms. Murray said that this is the first time that creeks and storm drains has been test for human waste. She said that the results are based on a limited number of samples taken during the summer of 2005. She said that the data is a snapshot of water quality in lower Mission Creek and Arroyo Burro watershed and a more detailed study of the Haley Street Storm Drain.

Ms. Murray stated that the Division has installed projects at the sites of concern. She said that a diversion system is operating at the Haley Street and Hope Avenue storm drains divert summer flows to the sanitary sewer system. She said that the Mesa Creek culvert is being removed and the creek has been day-lighted.

Dr. Holden of the UCSB Bren School stated that the Creeks Division is concerned with the fate and transport of fecal indicator bacteria in the creeks. She said that the conventional assays are deficient because they cannot discern between animal and human waste. She said that these assays are also subject to false positive and false negative signals because there are natural sources found in soils and sediments, and are dependent on culturing. She said that better information will lead to better management.

Dr. Holden stated that Phase II of the project was subdivided into three studies. The first study was a 3-day “snapshot” of lower Mission Creek. She said that she continued with the lower Mission Creek analysis by focusing on the Haley Street storm drain since it appeared to harbor a human fecal DNA signal. Dr. Holden stated that the rate of amplification was compared to that of fecal indicator bacteria. She said that the third study included a 3-day snapshot of Arroyo Burro.

Dr. Holden stated that samples were taken from the Mission Creek surf zone up to the Westside Drain. She stated that samples were taken at several locations and there was evidence of human waste at the Haley Street storm drain. She said that the sampling was a “snapshot” and it cannot be assumed that the location was contaminated throughout the summer. Dr. Holden stated that samples were also taken from Arroyo Burro, from the beach surf zone upstream to Las Positas Creek at Modoc Road. She said that the samples taken from Mesa Creek had evidence of human waste.

Dr. Holden stated that the fecal indicator bacteria at the Haley Street storm drain appears to decrease with distance, which may be due to dilution. She said that the human *Bacteroides* marker appears to decay more rapidly and that dilution cannot account for the magnitude of change.

In summary, Dr. Holden said that evidence of human waste was found at multiple locations and that the fecal indicator data led the research to “hot spots.” She said that indicators appear to decay away from the source while others amplify. Dr. Holden stated that the two DNA-based methods were also found to be consistent.

Dr. Holden said that she would like to continue with source tracking research at the Hope Avenue and Haley Street storm drains. She said that she would like to work with the City to determine if other storm drains with high indicator bacteria values also show evidence of human waste. Dr. Holden said that she would also like to sample the sediment downstream of the Haley Street storm drain to determine if the signals are being stored.

Dr. Holden closed by saying that the research results are being written as manuscripts and will be submitted for peer review publication.

Committee Discussion:

Mr. Klobucher asked if Dr. Holden would describe the process of source tracking.

- Dr. Holden stated that the process includes reviewing the City's storm drain infrastructure and televising the drains to determine if there is an obvious source of pollution. She said that sampling is then done upstream within the storm drain system and the research team monitors upstream until the evidence is no longer seen. Flows and concentrations are then analyzed.

Mr. Moldaver said that the City Administrator's staff has been collecting data on potential human fecal bacterial sources. He asked if Dr. Holden's quantitative field data has been compared with the social data related to homelessness and transients in the community to see if there is an overlap.

- Ms. Zachary responded that the City has installed project that address the situation by not sending polluted water into the creeks. She said that the Creeks Division has not yet analyzed the impact of homeless people as a source of the pollution.

Mr. Wilson asked if the Mesa Creek and Arroyo Burro Estuary samples with positive results for human fecal bacteria were taken on the same date, or if the signal was traveling through the lagoon. He asked if the sampling coincided with a particular time of the week. Mr. Wilson asked if the cost for this type of sampling is more or less expensive than traditional methods.

- Dr. Holden responded that during the sample being discussed was taken on the first day of the three-day snapshot, which was a Tuesday. She responded that this type of research is much more costly than what has historically been done.

Mr. Weber asked if the resolution of detection limits between bactroides and the PRFLP are similar.

- Dr. Holden responded that the resolution of detection limits cannot be answered directly because the peaks are not known. She said that the data does not discern between sewage, septage, or feces within the creek.

ACTION

Pritchett moved, seconded by Moldaver, and passed 7/0 that the Committee recommend that the Creeks Division move forward with a research plan for summer 2006 that focuses primarily on examination of the Hope Avenue, Haley Street, and Carrillo Street storm drains and include a component to assess sediment contamination.

c. USGS Microbial Contamination Study

Mr. John Izbicki, United States Geological Survey, stated that 13 water-table wells were installed to characterize potential sources of fecal bacteria in Mission Creek. He stated that the wells were installed as follows: three wells near Bohnett Park, seven wells near west beach, and three wells near Skater's Point. He said that there were unusually high concentrations of fecal bacteria near Skater's Point.

Mr. Izbicki reviewed the procedures used by the USGS to measure 1) ground-

water discharge to the ocean, 2) nutrients at the beach/ocean interface, and 3) bacteria levels at the beach ocean interface. He stated that the data indicates that the groundwater system is not the source of fecal indicator bacteria at the beach. He said that the harbor could be a source of the bacteria.

Mr. Izbicki stated that Santa Barbara's urban streams and ocean beaches have fecal indicator bacteria concentrations that exceed public health standards for recreational water. He said that at the time of the November sample collection, fecal indicator bacteria concentration in the ground water at the ocean/beach interface were 100 times lower than concentrations in the swash zone. Mr. Izbicki said that nutrient and fecal indicator bacteria concentrations in the swash zone were consistent with mobilization from detritus along the high-tide line that may harbor fecal indicator bacteria.

Committee discussion:

Mr. Wilson asked if the ocean water could be influencing the groundwater results.

- Mr. Izbicki stated that it is possible that the ocean water is influencing the groundwater results as the high tide moves inland more rapidly than groundwater reaches the ocean.

Mr. Pritchett asked if the sewer main near East Beach is leaking.

- Mr. Izbicki responded that on East Beach at Skater's Point, the well indicated a strong source of fecal indicator bacteria but did not state that this signal came from the sewer main.

Mr. Jordan asked if there are underground rivers or if groundwater flows to the ocean evenly.

- Mr. Izbicki responded that groundwater favors a path based on the type of soil that it is moving through.

10. STAFF REPORT

a. Manager's Program Update

Ms. Zachary announced that Leigh Ann Grabowsky has joined the Creeks Division as the Water Quality Monitor. She said that a Dawn Hock (IPM Alternatives), Niki Wilson (Water Quality Report) and Amy Burgard (Creek Walks and implementation steps for the SWMP) are Bren School students and recent graduates hired as interns for the Creeks Division.

Ms. Zachary reported that a site visit to the Arroyo Burro Estuary and Mesa Creek Restoration Project is scheduled for 4:30 p.m. on Friday. She said that that construction has begun on the Westside SURF project and would like to schedule a site visit in late August.

Ms. Zachary stated that Santa Barbara Beautiful has provided a \$10,000 for the Creek Stewards Project on San Roque Creek. She said that two grant proposals

have been submitted. The California Department of Fish and Game proposal is focused on the feasibility of altering the Caltrans Channel. She said that the Urban Streams Program proposal focused on the Las Positas Stormwater project.

b. Tentative Meeting Agenda

Ms. Zachary said that she would like to schedule a Strategic Planning Subcommittee meeting. She suggested having a work session in August or September to discuss strategic planning issues. She said that the work session could either be in lieu of or in addition to the regularly scheduled monthly meeting.

11. ADJOURNMENT

At 8:00 p.m. there being no further business to come before the Committee,

ACTION:

Weber moved, seconded by Wilson and passed 7/0 that the meeting be adjourned.

Respectfully submitted,

Jill E. Zachary
Creeks Restoration/Clean Water Manager