

City of Newport Beach
Coastal/Bay Water Quality Citizens Advisory Committee Minutes

Date: March 10, 2011
Time: 3:00 p.m.
Location: Fire Conference Room

1. Welcome/Self Introductions

Committee Members present:

Chairwoman/Mayor Pro Tem Nancy Gardner
Dennis Baker
George Drayton
Tom Houston
Jim Miller
Janet Rappaport
Randy Seton

Guests present:

Monica Mazur
Sgt. Steve McCormick, Harbor Patrol
Dan Purcell
Jack and Nancy Skinner
Lt. Tom Slayton, Harbor Master
Casey Clark

Staff present:

John Kappeler, Water Quality
Shannon Levin, Harbor Resources Supervisor
Shirley Oborny, Exec. Assistant to the City Manager

2. Approval of Previous Meeting's

The minutes from the February 10, 2011, meeting were approved.

3. Old Business

(a) Bay and Ocean Bacteriological Test Results

Ms. Mazur reviewed the latest bacti reports.

4. New Business

(a) Harbor Master Report (Lt. Tom Slayton)

Mayor Pro Tem Gardner introduced the new Harbor Master, Lt. Tom Slayton. Lt. Slayton said his philosophy is accessibility, reasonableness and common sense. He welcomes feedback and input from the City, the committee, etc.

He talked about the dye-tab program they are working on with Ms. Levin; a renter can be required to submit to a dye-tab program only if they enter into a contract since the program is voluntary. Ms. Levin explained that vessels are not allowed to discharge in the harbor but the Harbor Patrol doesn't have the authority to board the vessel. Lt. Slayton said if they do discharge; however, criminal enforcement can

take place. In response to Mr. Houston, Lt. Slayton said if the boater doesn't wish to get a mooring from Harbor Patrol, they can anchor in the C-1 anchorage.

In response to Mayor Pro Tem Gardner, Lt. Slayton said the Harbor Patrol is required to follow the laws that govern Orange County when there isn't a city municipal code in place. There are Fourth Amendment and search and seizure issues that come into play. Mayor Pro Tem Gardner said she'd find out from the City Attorney whether there is an existing ordinance that allows the Harbor Patrol to board a vessel. If there is, she recommends this committee and the Harbor Commission have a joint meeting to discuss it.

Continuing, Lt. Slayton explained that Newport Harbor is overseen by the Orange County Los Angeles Maritime Unified Command whose primary focus is human and narcotics smuggling activities. While Harbor Patrol may not be permitted to board the vessels, the Coastguard can and they can check for sanitary devices. He talked about how the different agencies are working together and water quality is one of the issues they can help with.

(b) Selenium Update

Mayor Pro Tem Gardner explained that because she sits on the Newport Bay Executive Committee and has been discussing the budget with the City Manager, she decided to bring the issue to the City Council when the IRWD gave the City a deadline to be part of the program. She said Dr. Skinner spoke at the Council meeting against spending funds. As a result, she suggested staff send a letter to IRWD with a copy to the Regional Board stating that because there are no assurances the program will work, it isn't the right program for the City at this time.

Mr. Stein presented a PowerPoint (see attached). He said the principal cities were looking to the non-responsible cities to fund the \$5 million. At this time the Cienega project will probably not go forward; although he thinks it's a good program. Overwatering and stagnate water needs to be addressed. Mr. Skinner talked about redirecting the water. Discussion ensued.

Mr. Stein said the goal is to retrain the public about runoff using more grant money for ET controllers, turf replacement programs, etc. Mr. Baker said it's becoming fashionable to have more native-friendly landscapes. In response to Mr. Baker, Mr. Kappeler and Mr. Stein agreed that the City is able to track improvements made as a result of the ET Controllers.

5. Public Comments on Non-Agenda Items

Mayor Pro Tem Gardner said the City Council recently considered eliminating some of the City's committees. The Coastal/Bay Water Quality Committee was deemed an important and productive committee and so it will continue with its work.

Mr. Kappeler announced that the WaterMiser Workshop was scheduled for 6:00 pm tonight at the Central Library.

Mr. Miller talked about an exciting idea he has for the old city hall site that would include a water way and attract a lot of visitors. Mayor Pro Tem Gardner suggested he put his ideas together a package and have it come from the West Newport Community Association.

Mr. Seton distributed a picture of an algae bloom that's hovering in the Grand Canal. He talked to Doug Shibberu at the Regional Water Quality Control Board and he reported a similar effect in the Huntington Harbour. Mr. Seton also reported seeing sea lettuce.

6. Topics for Future Agendas

- (a) Bacteriological Dry-Weather Runoff Gutter Study (Phase III)
- (b) OCTA Measure M
- (c) Coastal Dolphin Research Program
- (d) Banning Ranch Environmental Impact Report (EIR)
- (e) Harbor Area Management Plan (HAMP)
- (f) Shark Mobile
- (g) Prop 84 ASBS Grant Program
- (h) Water Quality/Water Conservation Resident Survey Results
- (i) Coastal/Bay Water Quality Committee and Harbor Commission Joint Meeting
- (j) SB 623 Copper Marine Paint
- (k) Green Streets Program
- (l) Newport Bay Watershed Sediment TMDL Basin Report

7. Set Next Meeting Date

The next meeting was set for April 14, 2011.

8. Adjournment

The meeting was adjourned at approximately 4:32 p.m.



Selenium Mitigation Program

Coastal/Bay Water
Quality Committee

March 10, 2011

Public Works Department

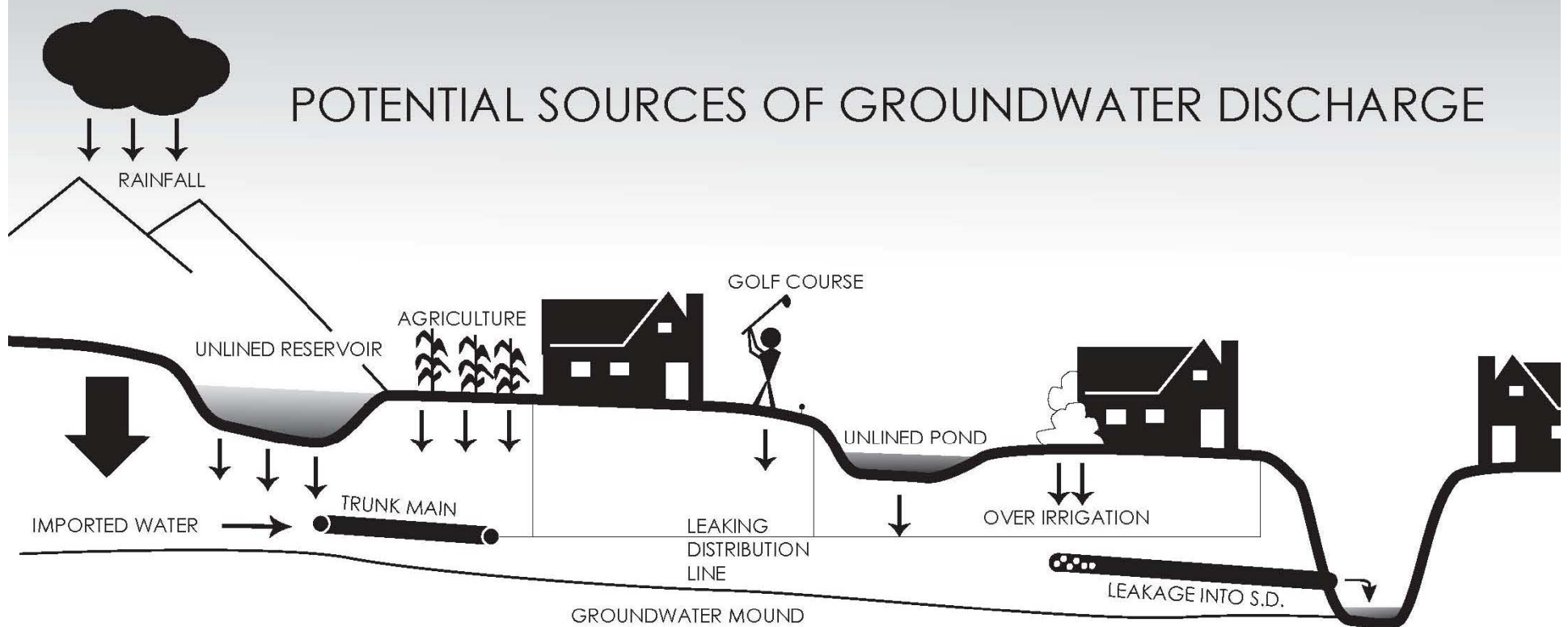
What is Selenium?

- Selenium is a naturally occurring element.
- Selenium is an essential nutrient for animals and some plants.
- Selenium salts are toxic in large amounts.

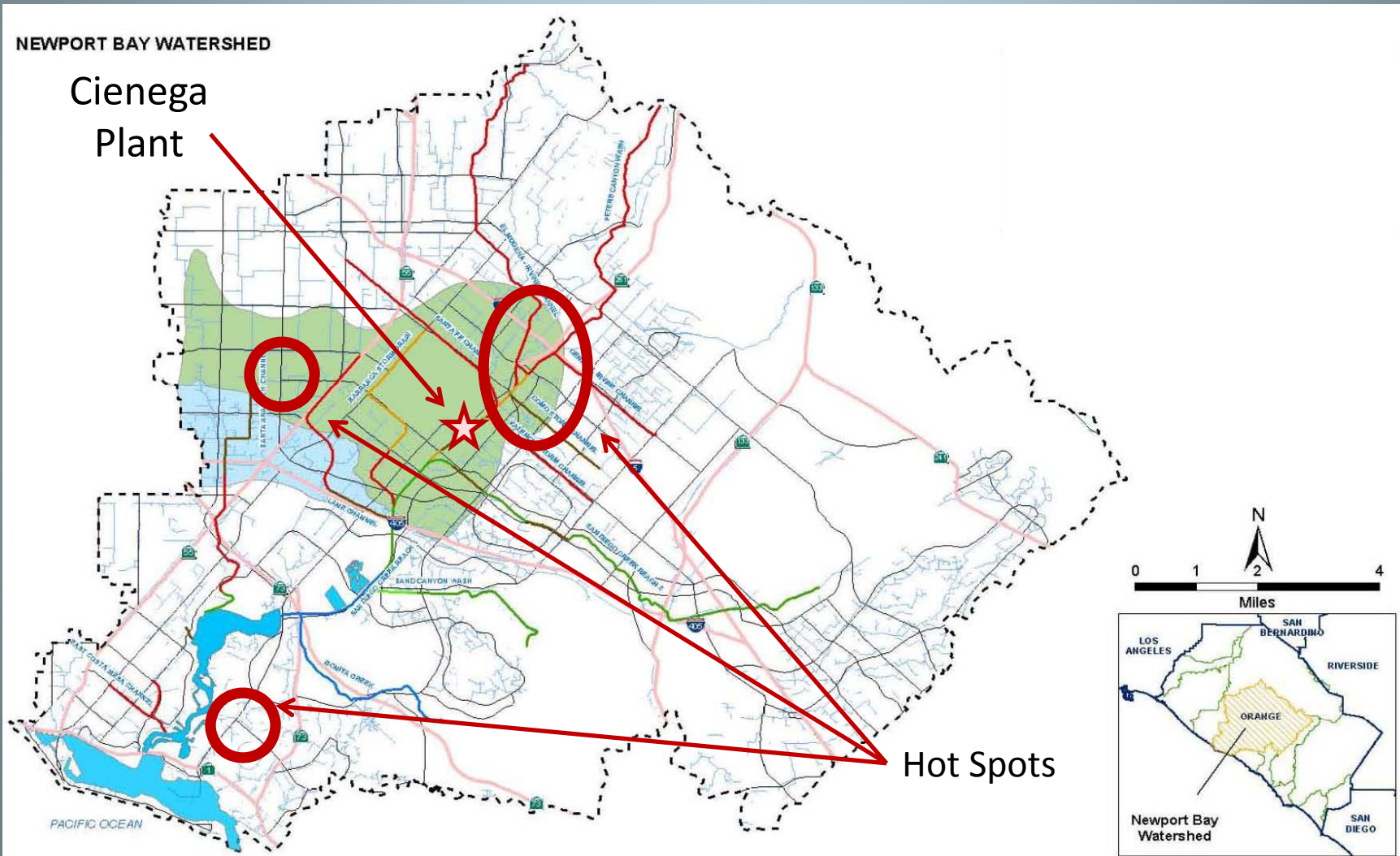
Periodic Table of Elements															
Group 1	Group 2	Main Group Elements										Group 18			
1	2	13	14	15	16	17	18	3	4	5	6	7	8	9	10
H	He	B	C	N	O	F	Ne	Li	Be	Sc	Ti	V	Cr	Mn	Fe
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Li	Be	B	C	N	O	F	Ne	Na	Mg	Al	Si	P	S	Cl	Ar
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Na	Mg	Al	Si	P	S	Cl	Ar	K	Ca	Sc	Ti	V	Cr	Mn	Fe
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se
39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te
55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Cs	Ba	* 57-70	Lu	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi
87	88	**	89	90	91	92	93	94	95	96	97	98	99	100	101
Fr	Ra	**	Lr	Rf	Db	Sg	Bh	Hs	Mt	Uun	Uuu	Uub	Uuq	Uur	Uus
87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb		
57	58	59	60	61	62	63	64	65	66	67	68	69	70		
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No		
89	90	91	92	93	94	95	96	97	98	99	100	101	102		

Selenium Mobilization

POTENTIAL SOURCES OF GROUNDWATER DISCHARGE



Selenium Hot Spots



Selenium TMDL Compliance

- Option One – Comprehensive Cooperative Watershed Program
 - 15-year compliance with early action item requirement
 - Develop BMP Strategic Plan
 - ❖ San Diego Creek treatment = 5-12 ppb
 - ❖ Big Canyon treatment = 1 ppb
 - ❖ Build Cienega Selenium Treatment Plant
 - ❖ Treat “Swamp of the Frogs” groundwater
 - Total potential shared cost: \$50-150 million

Selenium TMDL Compliance

- Option Two – Compliance with Numeric Effluent Limits
 - RWQCB assigns waste load allocation to each responsible party
 - RWQCB assigns compliance period
 - Immediate compliance at tend of pipe
 - Meet existing CTR limit = 5 ppb (all locations)
 - Potential Newport Beach cost: \$7-10 million

Cienega Treatment Plant

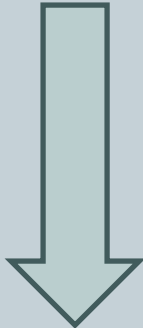


Barranca Parkway, Irvine

Cienega Treatment Plant

Selenium ABMET Treatment Plant

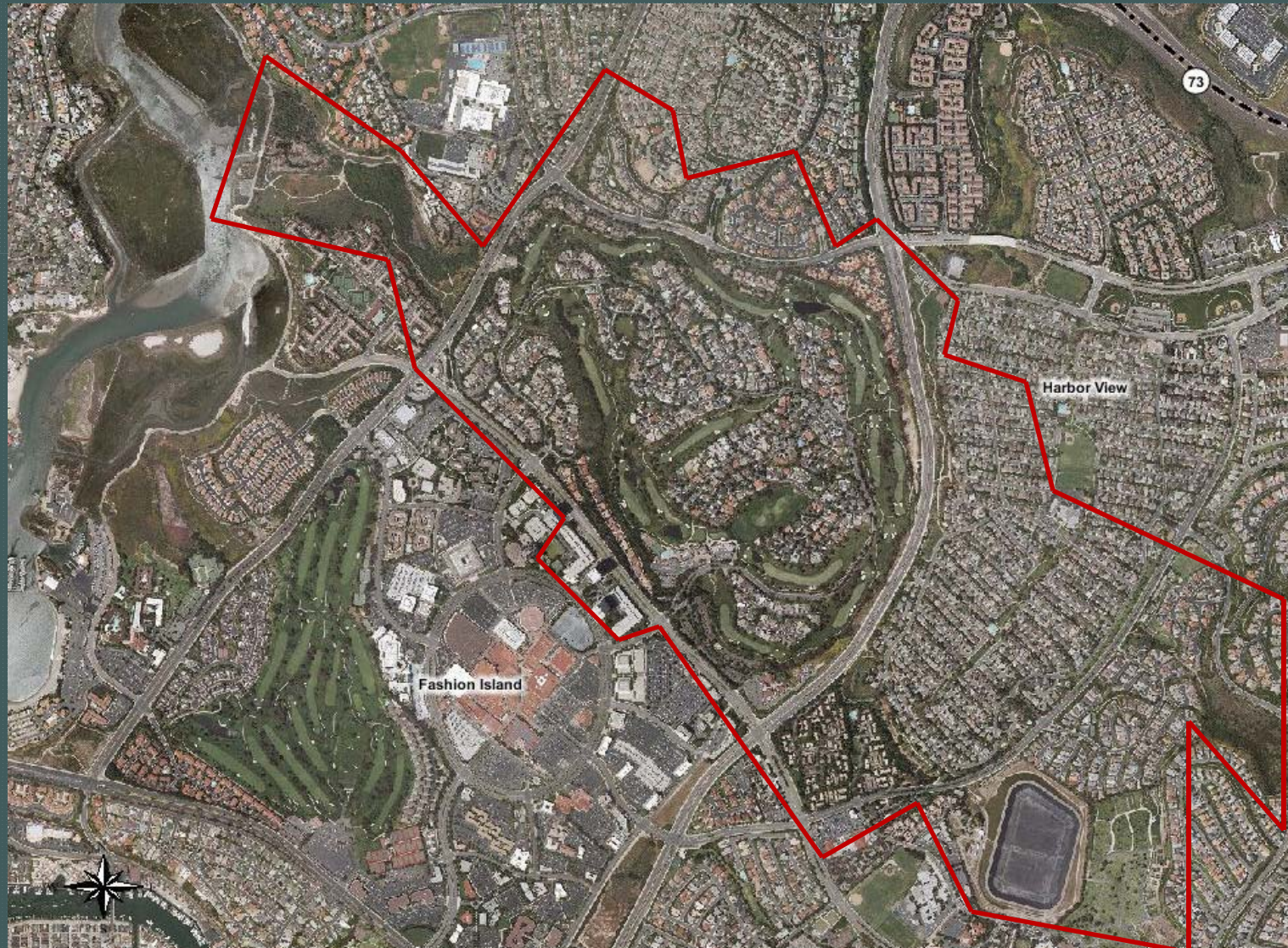
Selenium inflow	30-120 ppb
Creek flow	12 cfs (average)
Flow diverted to plant	3 cfs (1,350 gal/min)
Selenium concentration at end of treatment	9 ppb (@ pipe end)
Treatment stream- additional reductions	Arsenic (70%) Bacteria (50%) Copper (75%) Nitrates (100%) Zinc (100%)



Cienega Treatment Plant

- Construction Cost Estimates - \$22-30 million
- IRWD contributes a \$5.5 million Federal Grant
- IRWD operates and maintains plant
- Several scenarios being considered
 - ❖ Percent Land Area/Population Variations
 - ❖ Proportional Distance
 - ❖ Generation and Benefiter
- Newport Beach cost \$250,000 to \$1.5 million
- Proposed start in Fall 2011

Big Canyon Creek



Fish Tissue

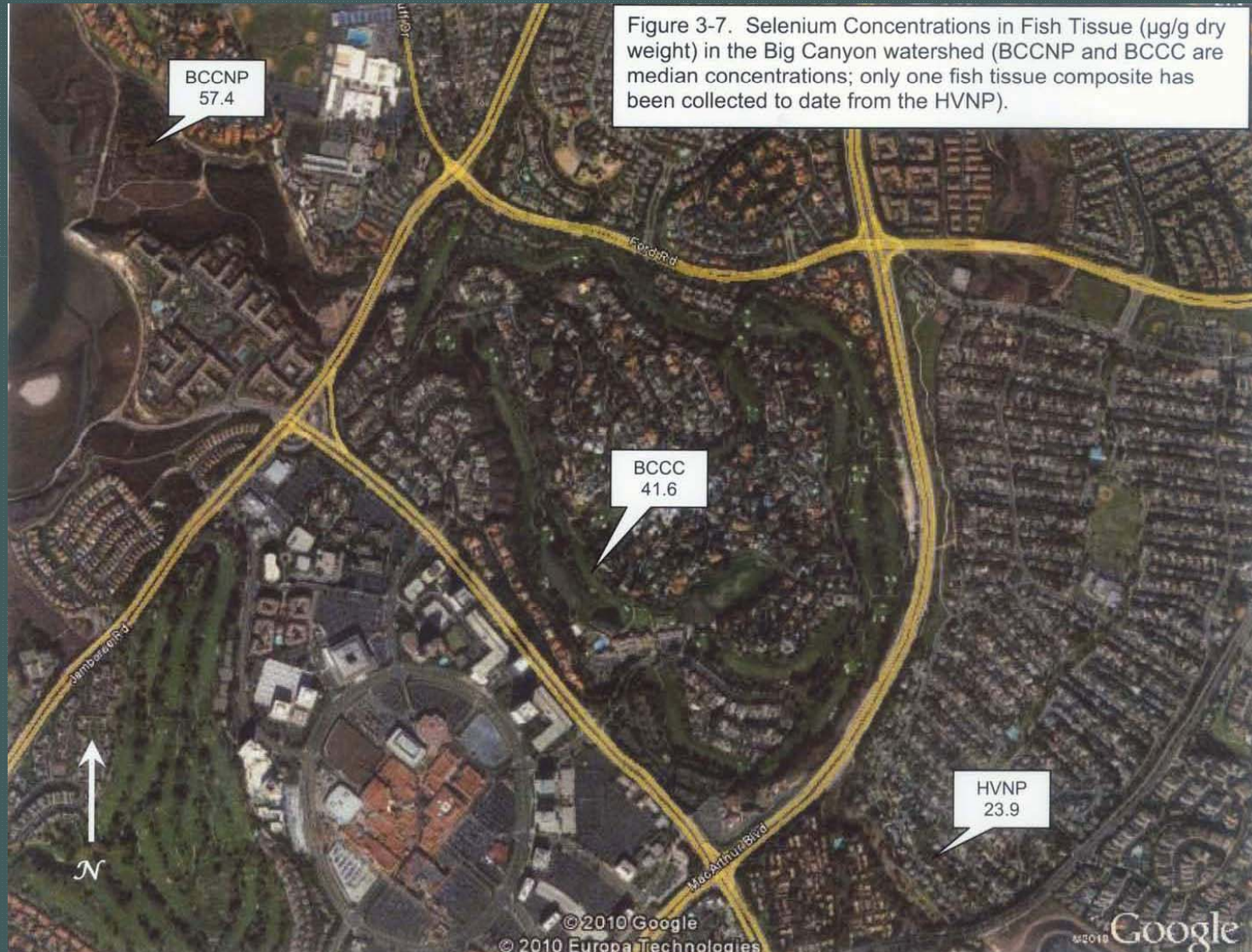


Figure 3-7. Selenium Concentrations in Fish Tissue (µg/g dry weight) in the Big Canyon watershed (BCCNP and BCCC are median concentrations; only one fish tissue composite has been collected to date from the HVNP).

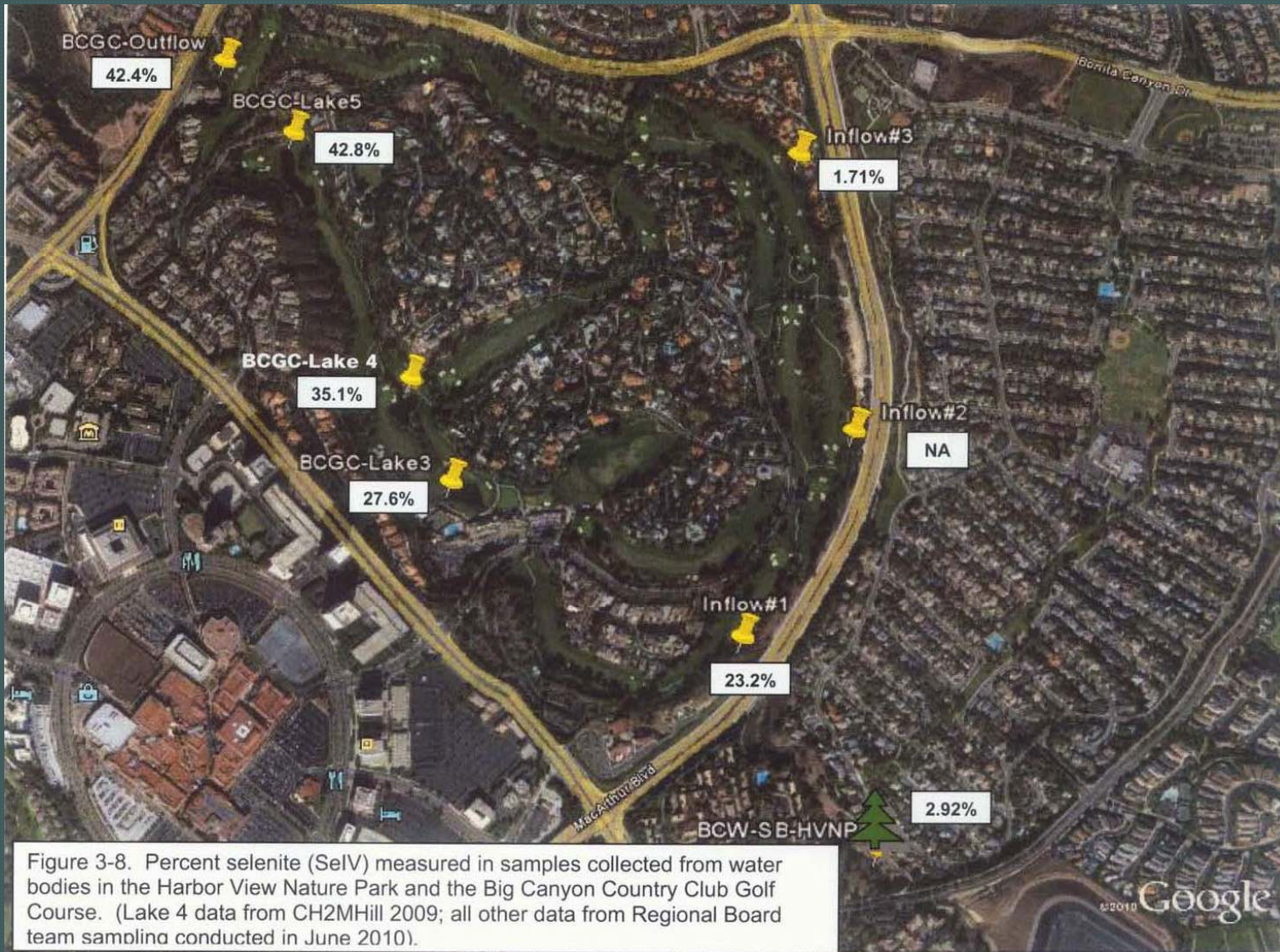
High Selenium Conc.



Underdrains and Subdrains



Selenite





Nature Park – Low velocity flow



Big Canyon Strategy

- Divert Reservoir low flow under-drain and 2 HOA sub-drains to sewer.
- Eliminate slow moving water areas
 - Target Nature Park & Golf Course Lakes
 - \$1.5 million Irvine Company settlement
- Continue reduction in over-irrigation activities
 - Audit & upgrade HOA and residential systems
 - \$667,000 USBR Grant

Big Canyon Strategy Continued

- Monitor effects
 - Field measure total Selenium, Selenate & Selenite
 - O&M Funds
- Potential Treatment Facility or Diversion at Jamboree
 - Install biological reactor
 - Underground wetland
 - Diversion to sewer
 - \$1.5 million Irvine Company settlement
- **Potential Overall Cost:**
 - \$5-7 million

Selenium Mitigation Program

Questions?