1. Introduction
   1.1 Purpose of the Groundwater Sustainability Plan

The Santa Monica Basin Groundwater Sustainability Agency (GSA), is comprised of the lead City of Santa Monica (Lisette Gold), the City of Los Angeles via its Department of Water and Power, which will necessitate input participation from the LA Department of Sanitation that has not yet occurred or been requested by the GSA. This data gap is explained in more detail below. The Cities of Culver City, Beverly Hills, and the County of Los Angeles comprise the GSA.

The August 2021 GSA Meeting Link is below with a presentation by Grassroots Coalition, Patricia McPherson & Dr. Margot Griswold, Restoration Ecologist, at 1:04:30. Our presentation provides an overview of key SGMA & GDE issues for the southern portion of the Santa Monica Subbasin with focus upon the **Ballona Wetlands Ecological Reserve, a Groundwater Dependent Ecosystem (GDE).**

Meeting Video

The Santa Monica Draft Groundwater Sustainability Plan (Draft GSP) was to be prepared by the GSA in compliance with the 2014 Sustainable Groundwater Management Act (SGMA), codified in California Water Code (CWC), Part 2.75 (Sustainable Groundwater Management), 10720 et seq. The Draft GSP was to be developed in accordance with the Department of Water Resources (DWR) GSP Regulations to apply to the entirety of the Subbasin that is not adjudicated (DWR Basin 4-011.01).

Grassroots Coalition believes that the Draft GSP of the Santa Monica Subbasin to be out of compliance with the investigative requirements of SGMA and believes that the Groundwater Dependent Ecosystem elements of SGMA have been excluded in whole and/or in part pertaining to the BALLONA WETLANDS and the sw region of the Subbasin. The BALLONA WETLANDS ECOLOGICAL RESERVE, as well as the underlying regional freshwater aquifers known individually as the Ballona, Bellflower and Silverado Aquifers, which act in this region as one unit, were not meaningfully addressed and the GSA excluded readily available data made known to the GSA and requested for inclusion. Despite our repeated requests for inclusion of critically important data, the GSA consultant company response at the August GSA 2021 Meeting was,

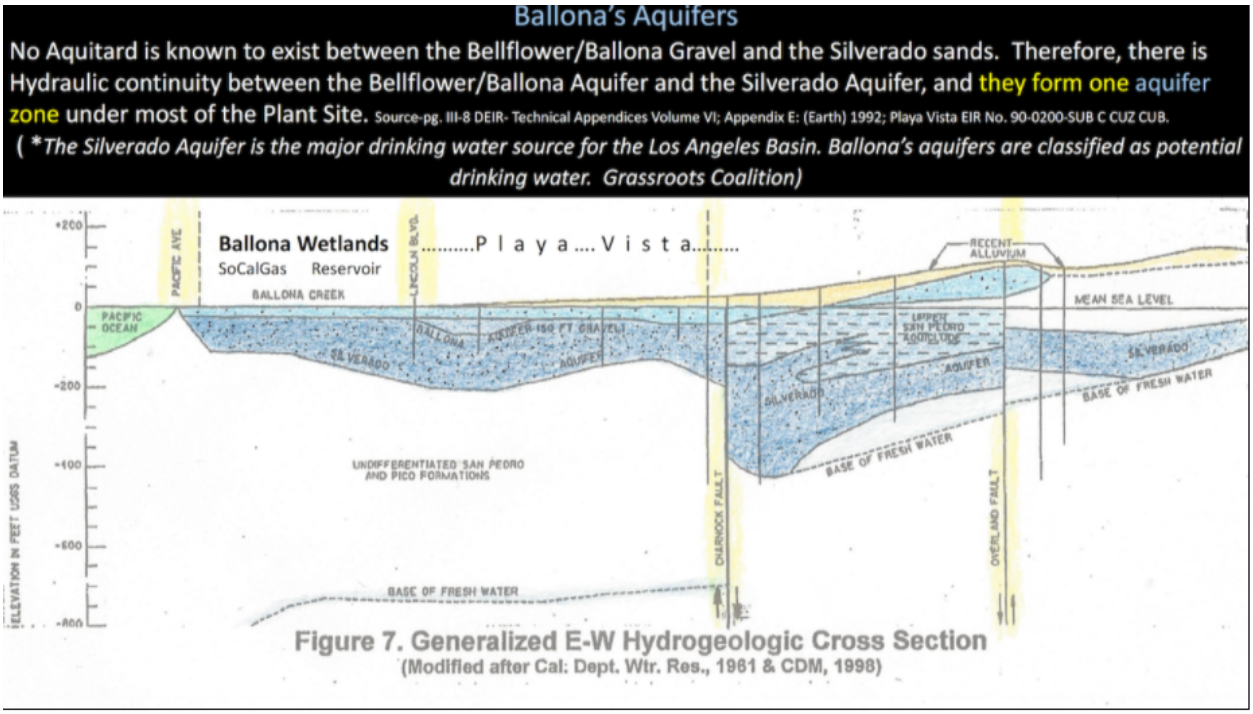
***"I think you know we have done the groundwater dependent ecosystem work under SGMA to the requirements of SGMA"…* Jill Weinberger, Dudek consulting company at 1:31:21 Meeting Video.**

Per the Santa Monica Subbasin GSA Meeting of August 2021, comment above from the GSAs' consultant company Dudek, and their Draft GSP response, Grassroots Coalition believes that the Draft should not be accepted by the Department of Water Resources due to numerous inaccurate conclusory statements and extensive data gaps pertaining to the southern region of the Subbasin and in particular, the Ballona Wetlands Ecological Reserve and all of Ballona's public trust lands and water as a Groundwater Dependent Ecosystem (GDE).

https://www.flickr.com/photos/stonebird/ - Jonathan Coffin photography of Ballona Wetlands.

Grassroots Coalition seeks an independent Groundwater Dependent Ecosystem investigation and evaluation that will inform, refine and discuss threshold objectives for developing a management plan for the freshwater resources of Ballona Wetlands Ecological Reserve and its public trust land and freshwater.

Grassroots Coalition seeks, on behalf of the Public Trust land and water of Ballona Wetlands, the restoration to Ballona Wetlands as a Groundwater Dependent Ecosystem -- any and all freshwater being diverted, drained and otherwise compromised and also seeks the protection from degradation to the multiple underlying freshwater aquifers.



Water Code, Article X, section 2 and Water Code sections 100 and 275 appear to apply to the GDE circumstances of the LARWQCB's oversight pertaining to their NPDES permits for discharge of the Playa Vista development site's pumped and discharged groundwater away from Ballona Wetlands. It is clearly obvious that the pumping and discharge of Playa Vista's (Ballona's) groundwater away from Ballona via discharge into the sanitary sewer or into the ocean is a waste of precious freshwater that Ballona Wetlands/ Ballona Wetlands Ecological Reserve needs. Section 100 places on the State Board, a non-discretionary affirmative duty to determine whether a water use is reasonable and beneficial and to prevent the waste and unreasonable use of all water resources in California. Section 275 directs the State Water Board to take all appropriate proceedings or actions before executive, legislative, or judicial agencies to prevent waste, unreasonable use, or unreasonable methods of use.

And,

It was stated in *People of the State of California* v. *United States* (9th Cir. 1956) 235 F.2d 647, 663: "[Everyone] must admit that the purpose of the constitutional amendment [now art. X, § 2] was to vest with a public interest the use of all the waters of the state, so that no part of the precious supply [***14] should flow uselessly into the sea or otherwise go to waste. This characterization applies to flood waters as well as to the normal flow."

And,

"SGMA defines sustainable groundwater management as the management and use of groundwater in a manner that can be maintained over a 50-year planning and implementation horizon without causing undesirable results. Under SGMA, undesirable results occur when significant and unreasonable effects

for any six sustainability indicators are caused by groundwater conditions occurring throughout the Subbasin." Page 1 of 6 Draft Subbasin.

"- Chronic lowering of groundwater levels

-Groundwater storage

-Seawater intrusion

-Degraded water quality

-Land Subsidence

-Depletions of interconnected surface water". pg.1 of 6 Draft Subbasin.

Ballona is a predominantly seasonal freshwater wetland that but for extreme storm events, was closed to the ocean. Ballona Wetlands historical background is documented in the Historical Ecology of the Ballona Creek Watershed 2011 by Dark, Shawna; Stein, Eric; Bram, Danielle; Osuna, Joel; Monteferante, Joseph; Longcore, Travis; Grossinger, Robin; Beller, Erin.

HISTORICAL ECOLOGY OF THE BALLONA CREEK WATERSHED — LONGCORE et. al.

Background of Data Gaps

The LA Department of Sanitation, under industrial wastewater permits, provides for the disposal of approved NPDES permitted pumped, clean groundwater from under the buildings of the Playa Vista (Ballona Conservancy managed) development site. While the Playa Vista Environmental Impact Report (EIR) disallows long term pumping of groundwater and has mitigation requirements that provide for cleansed or clean groundwater that is pumped to the surface, to be used onsite for recharging of the underlying aquifers, this has not been occurring. Instead of recharging the aquifers, the long-term pumping and disposal of clean groundwater away from Playa Vista's gas mitigation systems has been being sent to LA Sanitation as the site has been developed from 2001 to the present (page 16 of 28 in the PPT below contains example 'spider maps' that show locations of dewatering permits of Phase 1 west side of Playa Vista & Phase 2. (The east end of Phase 1 is unknown at this time.) Other NPDES permitted locations in Playa Vista similarly pump and dispose of clean groundwater for various reasons. Additionally, the Los Angeles Regional Water Quality Control Board (LARWQCB), under the Clean Up and Abatement Order (CAO) No. 98-125 for the historic Howard Hughes Aircraft Company's and McDonnell Douglas Helicopter Company's legacy of contaminated groundwater, sends this pumped and cleansed groundwater to either the L.A. Department of Sanitation or into the ocean via a flood control system for Playa Vista known as the Freshwater Marsh System. The Freshwater Marsh System (FWM) is designed to allow for the cleansed freshwater of the CAO, as well as runoff into it from adjacent rainfall areas, to spread out and remain in Ballona Wetlands to nurture the wetlands via an overflow area. The Freshwater Marsh System itself has HDPE liners along the Riparian Corridor portion precluding downward percolation of water and the catch basin itself, has a clay liner designed to prevent percolation of the FWM's catch-basin's water into the underlying aquifers. Instead of allowing for the overflow of this pumped water to spread out into Ballona Wetlands to also percolate and recharge the underlying aquifers, the cleansed water, for the most part, is thrown away into the ocean via what is called the Main Drain of the FWM which exits to the Ballona Channel which, in turn empties into the Santa Monica Bay and Pacific Ocean.

PATRICIA FINAL PPT 3.15.21 Presentation1 2 2.pptx

The Draft GSP has not addressed the ongoing dewatering of the Ballona Wetlands/ Playa Vista area of the Subbasin but to explain that it is not the GSA's role to deal with permitting of groundwater withdrawal. This response is both off-point and fails to gather available, essential data that would provide for a clear picture of hydrological impacts, including undesirable impacts that affect the GDE and have the potential, once identified, to be addressed that would assist in: compliance with Water Code laws, the Playa Vista mitigation requirements including Vesting Tract agreements and best management practices, that provide for sustainable yield acknowledgements and suggestions for combatting undesirable results.

The GSA is meant to clarify how it intends to wield its powers to stakeholders as the GSA also has the ability to consult with water right stakeholders and relevant stakeholders. Consultation has the potential in and of itself to alleviate negative impacts of groundwater withdrawal as consultation allows for sharing of critical information that may give rise to positive consentual agreements. Grassroots Coalition is unaware of an attempt by the GSA, the City of Santa Monica as lead of the GSP response, to consult with the available SGMA bound agencies and departments regarding Ballona Wetlands. Specifically, no information gathering has occurred for Playa Vista's & LARWQCB's cumulative dewatering and waste/ throw away of clean and/or cleansed freshwater from this area. The information gathering would necessarily include, but not be limited to: the City of Los Angeles, LA DWP, the LA Department of Sanitation, the County of Los Angeles, LARWQCB, and Playa Vista itself including but not limited to the Playa Vista- Ballona Conservancy which includes the California Department of Fish & Wildlife as a Board Member according to CDFW leadership, Rich Burg. Additionally, the California State Lands Commission, steward of the public trust property known as the Freshwater Marsh System (FWM), needs to be included in the information gathering loop. Multiple legal agreements are already in place that dictate protective ecological measures required for Ballona Wetlands, including but not limited to Playa Vista EIR mitigation measures, Vesting Tract Agreements, and the California Coastal Commission Settlement Agreements (2006 Case No. C525 826 Friends of Ballona et al v Ca. Coastal Commission and earlier) that require protective measures pertaining to groundwater and surface water specific to Ballona Wetlands and Ballona Wetlands Ecological Reserve. None of these agreements, and issues have been investigated and/or addressed in any meaningful way as yet by the GSA.

https://youtu.be/VPsSlqo5Tzc Freshwater diversion to Sanitation & Santa Monica Bay. Presentation to the California Coastal Commission 3/6/19

https://youtu.be/YHU9G0AKLAo Unpermitted drainage of Ballona Wetlands (20 years). Presentation 3/8/2019, to the California Coastal Commission (CCC). (Update - CCC Staff, rescinded its language, as requested by Grassroots Coalition and changed the language, cited at the end of this video, to comport with the ruling by the Commissioners.)

The Draft GSP cites that it discusses historical degradation of the groundwater quality as a result of industrial development and activities dating back to the mid -1900s, yet appears to exclude the most readily available, cogent, scientific and baseline hydrology data accrued via the grandfather of hydrology of the entire LA Basin—Poland et al 1959, as well as excluding readily available data collected by the United States federal government accrued for the creation of Marina del Rey in the

1960s timeframe by congress in the document known as House Document 389. (Santa Monica Subbasin Section attached- 1959 J.F. Poland, A.A. Garrett, and Allen Sinnott)

Complete 47 pages MDR House Document No. 389 SMB - Public Law 389 5:11:1954 47 page pdf

The 1959 Poland et al report portion pertaining to the Santa Monica subbasin is attached.

The Draft GSP states in relevant part, *" The City of Santa Monica is engaged in multiple programs to remediate the degraded groundwater in the Subbasin….overseen by Division of Drinking Water (DDW), Regional Water Quality Control Board…. Degradation of water that occurred before 2015, the year in which SGMA became effective, is not required to be addressed in this GSP (SWRCB 2019). Water quality in the Subbasin was degraded prior to 2015, the extent of degradation is well characterized, the City of Santa Monica is actively treating the groundwater under programs overseen by DDW, the RWQCB, and the SWRCB, and the degradation was not caused by groundwater production*. Emphasis added.

The statement on page 1-1 , again reinforces that **the Draft GSP's focus is on drinking water wells in the City of Santa Monica area** as the degradation cited above ostensibly references the recent MTBE contamination remediation. While evident that the MTBE degradation was not caused by seawater intrusion, the Draft excludes the well-studied and readily available historical and hydrologic data which demonstrates **seawater intrusion degradation,** caused by over-drafting **in the southern portion of the Subbasin, was not included for review** (Poland et al 1959; House Document 389 and later LARWQCB data of the Playa Vista site and the Playa Vista EIR data). Drinking water wells existed into the mid to late 1950's in Playa del Rey, the coastal beach town at the west end of the Ballona Wetlands. The Palisades Del Rey Water Company operated until seawater intrusion and issues pertaining to the SoCalGas underground gas storage operations gave rise to its closure. During this timeframe saltwater intrusion due to over-drafting was, according to Poland et al., occurring further south along the coast of the West Basin. The West Basin's protection from saltwater intrusion is being offset south of the Santa Monica Subbasin by freshwater injection. The Subbasin and West Basin do interface and overlap slightly in the Ballona Wetlands area as is pointed out in the Draft and as cited in the Poland et al Geology, Hydrology, and Chemical Character of Groundwaters in Torrance-Santa Monica Area, California. 1959

California Coastal Commission Meeting, May 8 2019, Ballona Wetlands History, a PDF SlideShow Presentation **pgs. 18-21 are relevant excerpts**

For adequate and prudent protection of the Groundwater Dependent Ecosystem that is Ballona Wetlands, protecting its predominantly freshwater nature and the underlying multiple freshwater aquifers, investigation into and inculcation of the data from the past is critical. It is also critical for the GSA to seek out pertinent dewatering data and information of the potentials for saltwater intrusion due to potential over-drafting from Playa Vista whose dewatering has, according to Los Angeles Regional Water Quality Control Board (LARWQCB) added to the lowering of the historic groundwater under Playa Vista. As much as 20' was expressed by LARWQCB years ago, during meetings with Grassroots Coalition, and a recent LARWQCB report cites up to 45' of groundwater depletion in areas under Playa Vista.

Harm to Ballona's hydrology due to freshwater diversion away from Ballona has already been noted as unacceptable by the California Department of Fish & Wildlife (CDFW) (https://saveballona.org/2017-california-department-fish-wildlife-cdfw-betty-courtney-cites-harm-ballona-due-reduced-water-flow-

playa-vista.html (CDFW, Betty Courtney Letter). Hence, the reality of harm occurring to Ballona's down watershed habitat via dewatering by Playa Vista, has already been acknowledged by CDFW. The California Coastal Commission (CCC) has also already acknowledged that diversion of freshwater away from Ballona has harmed its hydrology. In 2014, the CCC cited that Playa Vista and CDFW were both in violation of the California Coastal Act for unpermitted drains in Ballona Wetlands that had been and were harming the hydrology of Ballona Wetlands **California Coastal Commission (CCC) Letter (4/11/14) to Playa Vista and CDFW** . After prevailing litigation by Grassroots Coalition against both Playa Vista and CDFW, alongside subsequent orders to end the drainage from the California Coastal Commissioners, the drains have since been sealed.

The positive effects of restoring the freshwater to Ballona has given rise to an expansive regrowth of pickleweed throughout the areas affected by the drains. Pickleweed expanses are a necessary nesting habitat for the endangered Belding's Savannah Sparrow. This sparrow and its pickleweed habitat needs are a key component of the Ecological Reserve's, Title 14, Section 630 Purpose and Goals.

It is also critical for the GSA to consider and include for evaluation, the fulfillment of the CDFW approved Final Environmental Impact Report Plan for digging out the Ballona area to allow seawater intrusion for conversion of Ballona into a saltwater bay. The state approved CDFW Plan is not some far away, vague conceptual plan hence, it is incumbent for inclusion in GS Planning.

Already, U.S. Fish and Wildlife Service (USFWS) has requested a prudent GDE study performance (USFWS 2021 LETTER).

USFWS LETTER 2021 June- Christine Medak-

-----Original Message-----
From: Medak, Christine <Christine_Medak@fws.gov>
To: lori.webber@waterboards.ca.gov <lori.webber@waterboards.ca.gov>
Cc: patriciamcpherson1@verizon.net <patriciamcpherson1@verizon.net>
Sent: Mon, Jun 7, 2021 2:53 pm
Subject: Fw: [EXTERNAL] Fwd: Santa Monica Basin Groundwater Sustainability Plan (GSP) Stakeholder Workshop June 2021 Invite

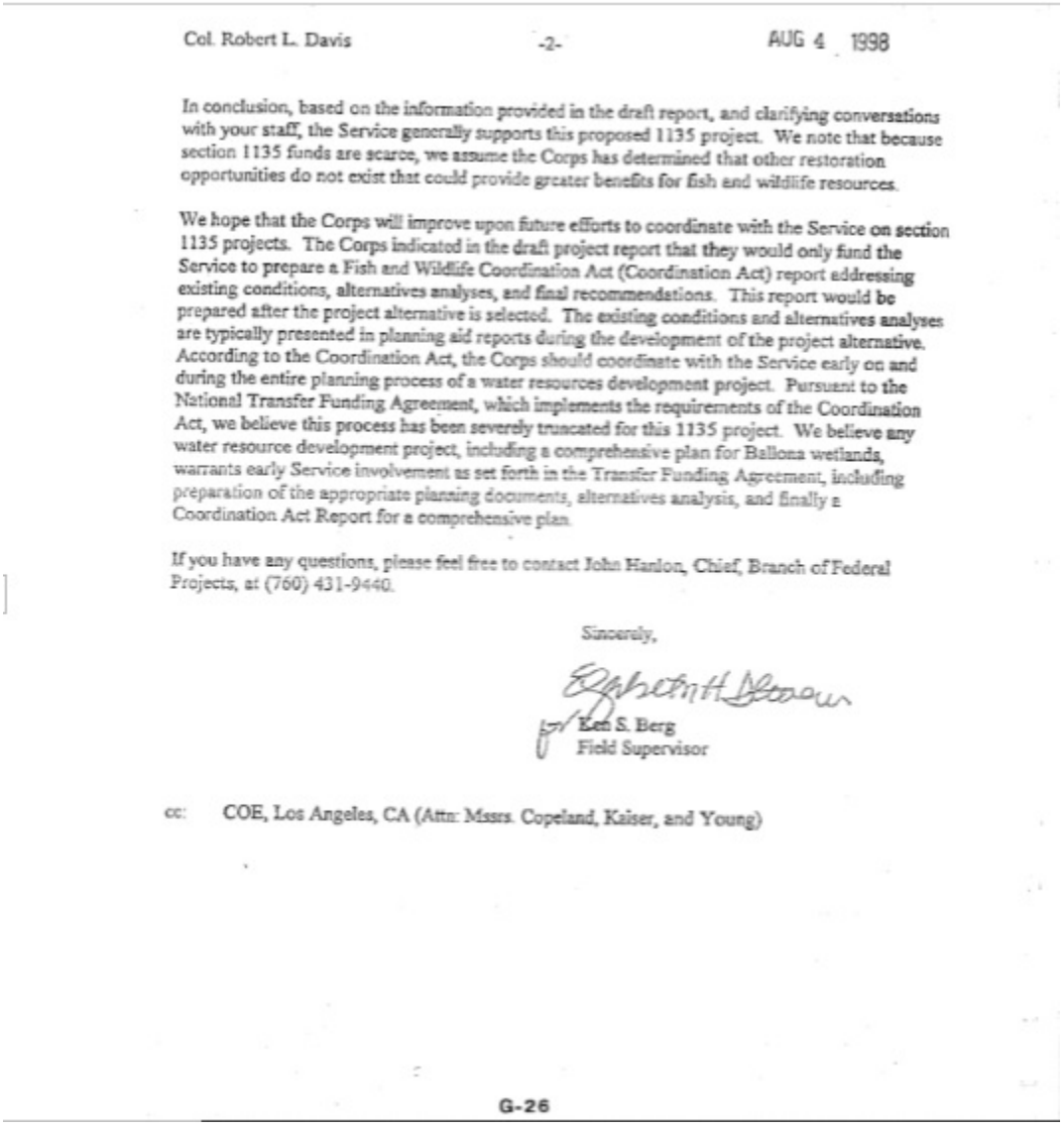
Hi Lori,

Do you know if there have been or are planned to be any groundwater management plans developed for the area including the Ballona Ecological Reserve? I am not able to respond to this question because I have not previously been involved in groundwater planning. If you are not the appropriate contact, can you please refer me to a contact within your agency that can provide some information on how this type of planning effort is typically initiated? I agree that Ballona wetlands would benefit from additional freshwater that is currently diverted to sanitary sewers or directly to Ballona Channel (through an underground culvert).

Christine L. Medak
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008
I am currently working from home indefinitely. Please contact me via email.

And, in 1998 USFWS stated its concerns,

"We believe any water resource development project, including a comprehensive plan for Ballona wetlands, warrants early Service involvement as set forth in the Transfer Funding Agreement, including preparation of the appropriate planning documents, alternative analysis, and finally a Coordination Act Report for a comprehensive plan."
Ken Berg, Field Supervisor; Branch Chief, John Hanlon, Branch of Federal Projects. Aug. 4, 1998 USFWS Letter to Col. Davis, USACE. (Page 2 of Letter below)



Col. Robert L. Davis -2- AUG 4 1998

In conclusion, based on the information provided in the draft report, and clarifying conversations with your staff, the Service generally supports this proposed 1135 project. We note that because section 1135 funds are scarce, we assume the Corps has determined that other restoration opportunities do not exist that could provide greater benefits for fish and wildlife resources.

We hope that the Corps will improve upon future efforts to coordinate with the Service on section 1135 projects. The Corps indicated in the draft project report that they would only fund the Service to prepare a Fish and Wildlife Coordination Act (Coordination Act) report addressing existing conditions, alternatives analyses, and final recommendations. This report would be prepared after the project alternative is selected. The existing conditions and alternatives analyses are typically presented in planning aid reports during the development of the project alternative. According to the Coordination Act, the Corps should coordinate with the Service early on and during the entire planning process of a water resources development project. Pursuant to the National Transfer Funding Agreement, which implements the requirements of the Coordination Act, we believe this process has been severely truncated for this 1135 project. We believe any water resource development project, including a comprehensive plan for Ballona wetlands, warrants early Service involvement as set forth in the Transfer Funding Agreement, including preparation of the appropriate planning documents, alternatives analysis, and finally a Coordination Act Report for a comprehensive plan.

If you have any questions, please feel free to contact John Hanlon, Chief, Branch of Federal Projects, at (760) 431-9440.

Sincerely,

for Ken S. Berg
Field Supervisor

cc: COE, Los Angeles, CA (Attn: Mssrs. Copeland, Kaiser, and Young)

G-26

Additionally, without monitoring wells established in the Marina del Rey area and elsewhere in this general area, there is no data supplied in the Draft GSP to support that seawater intrusion has been prevented in the Subbasin, especially from Marina del Rey southward to the bluffs of Playa del Rey/ Westchester—as is noted in the Draft GSP. *"Shifting groundwater production away from the coast and to deeper aquifers have prevented further seawater intrusion (DWR 2019)."* PG 2 Draft GSP.

Groundwater dewatering metering in the Marina area is not something that Grassroots Coalition (GC) is aware of occurring. Even the Draft suggests inserting at least two monitoring wells between Marina del Rey and the Charnock wells as saltwater intrusion may be occurring. GC is aware of multiple NPDES permits granted for development sites in MDR for 'construction dewatering' that have become perpetual dewatering permits—in other words, not just short- term construction dewatering permits but forever dewatering permits. How such long- term dewatering is affecting the groundwater in the region is important, if not critical to include and understand in order for informed decision making. Furthermore, for GDE purposes and state laws such as Porter-Cologne and the federal Clean Water Act, all of the aquifers underlying this southern area of the Subbasin matter to prevent saltwater contamination, not just the Silverado.

SUBSIDENCE

"Land subsidence due to groundwater withdrawal has not been documented in the Subbasin (Bawden 2003; DWR 2014)." Grassroots Coalition (GC) respectfully disagrees with this finding as a subsidence bowl of nearly 2 feet as of 1970, was created in the Venice Peninsula/Ballona area due to brine water withdrawal from within the oilfield formation (SoCalGas, Riegle Report). In Playa del Rey, SoCalGas /SEMPRA (SCG) conducts an underground gas storage operation within the Venice oilfield. As part of the operations, SCG withdraws approximately 2700 barrels a day of formation brine water. As a result of litigation against SoCalGas/Playa del Rey by GC, subsidence monitoring was ordered to take place via InSar satellite monitoring. The monitoring did not reflect alleviation of the subsidence that had already occurred and began and ended between 2007- 2014 **Settlement Agreement May 11, 2000, Decision 07-12-035 December 20, 2007** (Settlement Agreement GC v SoCalGas). Subsidence investigation has not taken place within the current Draft GSP of which GC is aware that would inculcate activities of SCG. Therefore, subsidence study appears to have not occurred. Further, USGS documented near surface water depletion as having caused subsidence (J. Riegle Gas Storage in the PDR oilfield; subsidence graph, Playa Vista EIR). The USGS documentation appears absent in the Draft GSP. The Playa Vista site also has been documented as having subsidence that has not been inculcated into the Draft GSP. (Endres PhD analysis of Playa Vista's subsidence study submitted to the Los Angeles Dept. of Building & Safety. The Endres evaluation was submitted by Grassroots Coalition in our response to the Draft CDFW/EIR Ballona.

By way of comparison of the established 'subsidence bowl' of nearly two feet in the Venice/Playa del Rey area due to SoCalGas operations (SoCalGas subsidence graphic), similarly two feet of subsidence in the manmade harbor, King Harbor in Redondo Beach, Ca.(Santa Monica Bay) experienced approximately two feet of subsidence due to oilfield subsidence issues and suffered severe damage and litigation following a storm event in 1988, ceqanet.opr.ca.gov/1988090901 , CEQA SCH Number 1988090901 provides the lead agency's (US Army Corp of Engineers) Storm Damage Reduction Summary.

The Draft GSP's discussion of subsidence as not a historical occurrence due to fluid withdrawal is inaccurate. Provided below are subsidence issues caused by fluid withdrawal at depth within the oilfield setting which the Draft appears to have no information hence, the following are simply provided to raise awareness of the subsidence issues in our area and nearby. There is a great deal of information available and a need for such consideration in the Santa Monica Subbasin.

InSAR data from SoCalGas/Playa del Rey that provided subsidence monitoring as part of the Settlement Agreement between SCG v Grassroots Coalition for the Ballona region is available and has not been garnered by the GSA for evaluation in this Draft GSP.

1. History - Geotechnical and Civil Engineering firms in ...
   web.mst.edu/~rogersda/Geotechnical-Practice...
   By 1945 Los Angeles-Long Beach was the largest man-made port in the world, but the problems of flooding, siltation, earthquakes, and ground subsidence combined to make it one of the most geoetechnically challenging harbor facilities in the world.

Subsidence - Overview Oilfields of Southern California
Subsidence Overview - Redondo Beach King Harbor - Breakwater Evaluation / Inglewood Field 19 meg
Chilingarian, George V; Endres, Bernard L; 199**Subsidence** - Beverly Hills, CA

Urban Oil Production and Subsidence Control - Case History - Beverly Hills, CA Oilfield
Erickson, R C; Spaulding, A O; Society of Petroleum Engineers - Annual Meeting, 1975

1. 2

*Additionally, the citation used in the Draft GSP of CADWR 2014, Summary of recent, historical, and estimated potential for future land subsidence in California 2014, does not address the Santa Monica Subbasin but instead the San Joaquin Valley. It does however, provide information on widespread land subsidence due to groundwater withdrawal and degradation of groundwater-dependent ecosystems (The Nature Conservancy 2014) and ventures further to discuss options to achieve groundwater sustainability that include increasing surface water supplies, and recharging from dedicated recharge basins or temporary wetlands on fallowed fields as options in some basins.

The Draft GSP also cites as reference, The Bawden, Gerald 2003, Separating Groundwater and Hydrocarbon Induced Deformation… provides a 2003 writeup per a 2001 Subsidence Interest Group Conference. However there appears to be nothing in this referenced literature that cites to the Santa Monica Subbasin but instead, the literature references the presentation's discussions of the Houston/Galveston Texas area and Los Vegas, Nevada area. There is also reference to a presentation on the methodology of INSAR technology.

The following links provide further information pertaining to the SOCALGAS/PLAYA DEL REY operations and concerns:

1. SoCal Gas PDR Underground Gas Storage Operations
   saveballona.org/system/files/GRASSROOTS...
   Timeline of Incidents & Events in Playa del Rey / Ballona Wetlands Area Updated: June 15, 2019 2/24/11- SoCalGas Incident—mud/water, storage gas leaking to surface Riegle 1

2. Regional Geochemical Assessment of Methane, BTEX and H2S Gas ...

www.eti-geochemistry.com/Regional
The Playa del Rey Oil Field, and now Southern California Gas Storage Field lies immediately to the west of Lincoln Blvd. (Barton, 1931, Hodges, 1944 and Riegle, 1953). In order to determine whether or not this gas storage field had contributed as a source, ETI had suggested that additional studies needed to be conducted (ETI 1st and 2nd Progress Reports, 1999).

INTERCONNECTED WATER

The Draft GSP cites that, *"Depletions of interconnected surface water have not occurred historically in the Subbasin because, Ballona Creek, the primary surface water drainage, has been maintained as a lined and grouted flood-control channel since the 1950s (ACOE 1982; DWR 2019)."*

Grassroots Coalition disagrees with the GSA interpretation of ACOE AND DWR info cited above. The GDE- Ballona Wetlands is a predominantly seasonal freshwater wetland. This GDE relies upon groundwater that is part of the entire LA Basin watershed, that allows for the watershed to flow underground through Ballona Wetlands, keeping the groundwater at or near the surface (DWR Map & Playa Vista EIR) and recharge the underlying freshwater aquifers. Ballona also relies upon seasonal rains that typically and readily pond across Ballona Wetlands due to the near surface groundwater and various soils across this region. The ponding can last for months (Terry Huffman Phd 1986 USEPA , Region IX, Determination of the Presence of Aquatic and Wetland Habitats Subject to Federal Regulatory Jurisdiction Within The Ballona Creek Land Tract).

Depletion of the interconnected surface water for this region has been ongoing for the past 20 years, unbeknownst to the public until litigation against CDFW and Playa Vista by Grassroots Coalition began the process of transparency and closure of the illegal drainage. The unpermitted drains and numerous manmade drainage channels, which experts have stated should be blocked from allowing freshwater from emptying into the Ballona Channel and wasted at sea, were not accounted for in the CDFW Draft EIR. The Draft GSP similarly has not provided for any evaluation of the freshwater drainage upon Ballona Wetlands Ecological Reserve, as a GDE. Currently, the unpermitted drains' below ground structures contain large weep holes for groundwater drainage, that have caulking in the weep holes. The caulking failed in an earlier sealing attempt. The top of the drains were resealed using other structures, but there has been no accounting for the subsurface potential for drainage that may be starting to occur as a result of caulking failure. As a GDE all of these interconnected surface water areas need to be evaluated and considered as part of a GSP.

Furthermore, rainwater at Playa Vista is collected (called nuisance dewatering/ LA Department of Building & Safety) and thrown away via NPDES permits that allow for the rainwater to be sent to the Sanitary Sewer System under Industrial Wastewater permits. All of this cumulative dewatering needs to have address.

The Playa Vista (Ballona Conservancy) essentially walls off fresh watershed water from flowing west, seaward to Ballona Wetlands via pumping from below building sites then sending this clean water to the Sanitary Sewer System via NPDES permits and Industrial Wastewater permits. The wasting of this clean freshwater and the restriction of this water from flowing into Ballona Wetlands is contrary to agreements between Playa Vista and the City of Los Angeles within the Playa Vista EIR mitigation

requirements, Vesting Tract Agreements, and a Settlement Agreement originating in the California Coastal Commission v Friends of Ballona et al and updated with the City/County of Los Angeles in 2006. This Agreement further defines that no harm will come to Ballona Wetlands through development activities of Playa Vista (Case No. C525 826 Friends of Ballona et al v Ca. Co. Commission).

Cumulative dewatering activities that are ongoing directly adjacent to the wetlands are not evaluated or included in the GSP. None of the Ballona Wetland's unpermitted and permitted drainage of its seasonal freshwater have been included or evaluated in the GSP for Ballona Wetlands, a Groundwater Dependent Ecosystem.

1.2 Sustainability Goal (DRAFT GSP)

"Ensuring groundwater conditions in the Subbasin support sufficient seaward flow of fresh water to prevent significant and unreasonable seawater intrusion in the Silverado aquifer." emphasis added.

The Sustainability Goal as cited above from the Draft GSP, demonstrates the focus of the Draft GSP has been upon the Silverado aquifer, the main source of drinking water for the City of Santa Monica and other stakeholders. The following comment in the Draft GSP, while appearing to provide for the GDE's protection is contradicted by this Draft's conclusory statements regarding the GDE as receiving no effects from dewatering activities, which was ostensibly reached due to extremely limited and/or nonexistent investigation into the Ballona Wetland GDE area's groundwater production.

"Continuing groundwater production at rates and in aquifers that do not impact the ability of groundwater dependent ecosystems to access groundwater."

The Draft GSP's conclusions pertaining to Ballona Wetlands are made while the Draft provides little to no data of groundwater production and/or seawater intrusion issues that pertain to Ballona Wetlands and its underlying freshwater aquifers that are classified by LARWQCB as Potential Drinking Water. In a recent court decision, the aquifers were classified as Drinking Water for purposes of remediation from SoCalGas oil/gas operations-- Settlement Agreement (Prop. 65; SCG v ELF Case No. BC 364555). This Settlement Agreement also iterates that IF the water quality changes, as it would most certainly should CDFW's Plan for digging out Ballona to create a new saltwater bay be carried out, THEN SoCalGas would no longer have to remediate their contaminated groundwater to Drinking Water standards. This would hold true for any new discoveries of contamination from SoCalGas/ Playa del Rey operations into the future as the city, county and state work to support the end of fossil fuel use, and specifically the closure of this facility and operations. Decommissioning studies of SoCalGas point out the likely contamination from their operations.

There is no meaningful investigation pertinent to the GDE- Ballona Wetlands demonstrated via the Draft GSP. However, conclusory statements that the GDE is not in any significant jeopardy from groundwater withdrawal/ surface water removal, and/or contamination potentials are rendered in the Draft.

The following LINK relates to a legislatively ordered study of all the underground gas storage facilities in California. It singles out SoCalGas/Playa del Rey underground gas storage operations as a most hazardous operation due to its aging infrastructure, location and historical problems with control of the gas. Saltwater intrusion is well established as a cause of infrastructure corrosion for SoCalGas/Playa del

Rey, causing pipeline leakage incidents and gas/oil well leakage especially along the coastal edge of Playa del Rey and Venice. Hundreds of old, poorly abandoned wells are included as part of and directly adjacent to the operational area. There is a lack of saltwater intrusion monitoring acknowledged in the Draft GSP for this area. This data gap also relates to the intended CDFW Plan to convert Ballona land mass into a saltwater bay**.**

The Draft GSP only cites to CDFW's Plan as providing more wetlands. Such conclusory comment, without any data support, is a recipe for disaster and fails to adhere to GDE proactive, protective planning as well as fails to adhere to proactive SGMA policies of protection to the built environment as well as the GDE environment of habitat protection.

CCST Report: RISK & VIABILITY OF SOCALGAS PLAYA DEL REY UNDERGROUND NATURAL GAS STORAGE

1.2Agency Information (Draft GSP)

Grassroots Coalition has been party to multiple Public Meetings and has provided input and a video presentation as well as a Public Meeting presentation. The Draft does not reflect or include the issues presented to the GSA that were first provided to the GSA via an emailed Powerpoint and more recently as a Powerpoint Presentation.

PATRICIA FINAL PPT 3.15.21 Presentation1 2 2.pptx

The Draft GSP also appears to exclude DWR data such as mapping done for the Ballona region's aquifers and faults.

Readily available data and information known via press stories and agencies--their historical records that are pertinent to the GDE, also appear to have been excluded from the Draft prepared by Dudek et al.

As an historic stakeholder (30 years) and a key 501 c3, engaged in numerous successful litigations and administrative actions pertaining to the acquisition and protection of Ballona Wetlands and numerous public safety actions, Grassroots Coalition provides notification to California Division of Water Resources (DWR) of these exclusions and requests the Draft GSP be rejected due to its conclusory statements made without data support and/or evaluation that would have/should have included this basic water diversion and drainage data.

INTENDED SALTWATER INTRUSION BY THE CALIFORNIA DEPARTMENT OF FISH & WILDLIFE-

- The GSA should have included the CDFW approved Plan of saltwater intrusion into Ballona and the region that is contained in their Final Environmental Impact Report (FEIR). There is no

mention in the GSP Draft of the CDFW Plan or its potential implications of contamination via saltwater intrusion into the predominantly seasonal freshwater wetland of the GDE, and or implications upon the freshwater aquifers currently classified as Drinking Water. Thus far, saltwater intrusion into Ballona's multiple aquifers has not been addressed in the FEIR. During the May 27, 2021 California Coastal Conservancy meeting, when asked about a freshwater alternative, Coastal Conservancy's Mary Small cites that early on it was considered but not carried forward. This is likely why no cumulative hydrology evaluation was ever undertaken to include within the FEIR. (Meeting @ 3:17:15). When asked by Coastal Conservancy Chair Bosco about the potential of the CDFW project affecting the freshwater aquifers of Ballona, no explanation was offered. Only a conclusory opinion was offered from Ms. Small claiming there would be no impact from the project upon the aquifers (3:20:39). The FEIR contains no evaluation of this issue and contains no discussion of protection of the aquifers per Porter-Cologne; Clean Water Act and/ or the SGMA. Conclusory statements without data support.

- **SEA LEVEL RISE** In the May Coastal Conservancy Meeting, CDFW's Director Bonham opines at 2:42:28 that without the (CDFW) Project, seawater will overtake the area and that their Project improves upon things as a defense against sea level rise. Director Bonham's response to Board Members is contradicted by CDFW's FEIR sea level rise models that reveal the Project will enhance sea level rise problems thus destroying critical habitat. Dr. Margot Griswold, Restoration Ecologist, alerted the Coastal Conservancy Board Members at their 9/24/21 Meeting during public comment, that CDFW's Sea Level Rise Model does compare the CDFW Project to the 'No Project' but that it is buried in the FEIR indexes, hence easily missed. The CDFW Sea Level rise model clearly demonstrates the Project's degradation of Ballona Wetlands. **At 15:26 Dr. Griswold displays the CDFW modeling, demonstrating that the proposed CDFW Project will not protect existing marsh species from expected Sea Level Rise, but instead, saltwater intrusion will destroy critical habitat, turning it into mudflats.** https://youtu.be/Na3J6Z3bV0M
-
- Recording of May 27 Meeting – Part 1 (5/27/2021 Ca. Coastal Conservancy Meeting)

Meanwhile, it is already established that any digging out of the soils, per CDFW's Plan for conversion of Ballona into a full tidal bay, will provide for saltwater intrusion. The aquifers of Ballona are classified as Potential Drinking Water by the LARWQCB and needs protection under SGMA. During the construction of Marina del Rey, engineers provided warnings as to effects upon the aquifers from salt water intrusion. South of Marina del Rey, within the same soil conditions, lies Ballona Wetlands Ecological Reserve which needs protection from saltwater intrusion.

"In general a large portion of the impermeable material above the 50'gravel occurs near the land surface. ….. Average aggregate thickness of clay above the aquifer is about 9 feet." (HD 389 pgs. 8-9)

Further, HD 389 further warns regarding the consequences of removing surface soils to saltwater intrusion , … "by increasing the landward slope of the water table and consequently the landward flow of saline water." (HD 389 pgs 8-9)

The Draft GSP does not address the negative potentials of saltwater intrusion upon the GDE, the aquifers or the built environment.

Regarding the aquifers and potential contamination by CDFW's planned saltwater intrusion, the recording of the May 27, 2021 meeting establishes that both Director Bonham and Coastal Conservancy's Mary Small, in response to a direct board member query on this topic, only provided short conclusory statement of their own personal beliefs that there would be 'no effect' upon the aquifers due to the CDFW project. No data support for such an assumption was offered and no data or information regarding this issue is included in the FEIR. The FEIR contains no responsive response to either the Poland Report and/or House Document 389. (Link location 3:20:52-3:21:23) It is imperative to prudently and scientifically consider saltwater intrusion impacts upon all of the freshwater aquifers in the CDFW project plan area which has not occurred.

SOCALGAS/PLAYA DEL REY CONTAMINATION ISSUES

Per the lack of address in the Draft GSP pertaining to potential contamination issues due to SoCalGas/Playa del Rey operations. This may be due to CDFW's FEIR containing no evaluation pertaining to SCG operational impacts from their Plan of conversion of the land mass of Ballona into a saltwater bay. However, the GSA needs to independently consider and gather readily available data and information, revealing contamination aspects pertinent to both the GDE and the built environment.

During the recent Coastal Conservancy Meeting noted above, both the Coastal Conservancy's lead Mary Small, who in the 2007-8 timeframe was also a Bay Foundation Board Member and contributed to the creation of the bay concept, and CDFW's Director Chuck Bonham repeatedly stated to Conservancy Board Members that the CDFW Plan for conversion of Ballona into a full tidal, saltwater bay—has no bearing on the continuing operations of the SoCalGas natural gas storage (operations). 2:54:57.

While true in the sense that CAL GEM and the CPUC do provide oversight of the SoCalGas operations, what is omitted is that neither Cal Gem nor the CPUC have been consulted per CDFW's Plan of saltwater intrusion. Director Bonham at 2:33:00 cites that CDFW wants the infrastructure out of the Reserve….that CDFW wants the infrastructure to be removed from the land to be restored… What is omitted in such overly broad and simplistic comments spoken ostensibly for neophytes to oil/gas operations, is that there is nothing in the FEIR discussing the hazards of corrosion and inability to access **the subsurface infrastructure that IS NOT REMOVED & WILL ALWAYS REMAIN** as potential conduits of gas and oilfield contamination. What is not addressed are the enhanced corrosion dangers to all the SoCalGas infrastructures including any new drilled wells. The saltwater interface with oilwells causing leakage due to corrosion is already well documented in SoCalGas wells of Playa del Rey operations. One only needs to look at the Ballona Channel to see outgassing that originates from abandoned wells. It is easy to view abandoned oilwells leaking Playa del Rey oilfield gases, which can and do leak gases, to the surface in Ballona Lagoon Marine Preserve. SoCalGas reservoir gases are documented as part of oil/gas well leakage to the surface. Cal Gem (aka Division of Oil & Gas) shut down SoCalGas/Playa del Rey for a year in 2010 due to reservoir gas leakage to the surface. The leakage was discovered due to litigation by Grassroots Coalition against SoCalGas which culminated in gas monitoring to be done as part of our Settlement Agreement. A URS gas study found the reservoir gas leakage. These are all real and potential dangers that state legislators, the City of Los Angeles are already trying to see fixed and as yet, have not been.

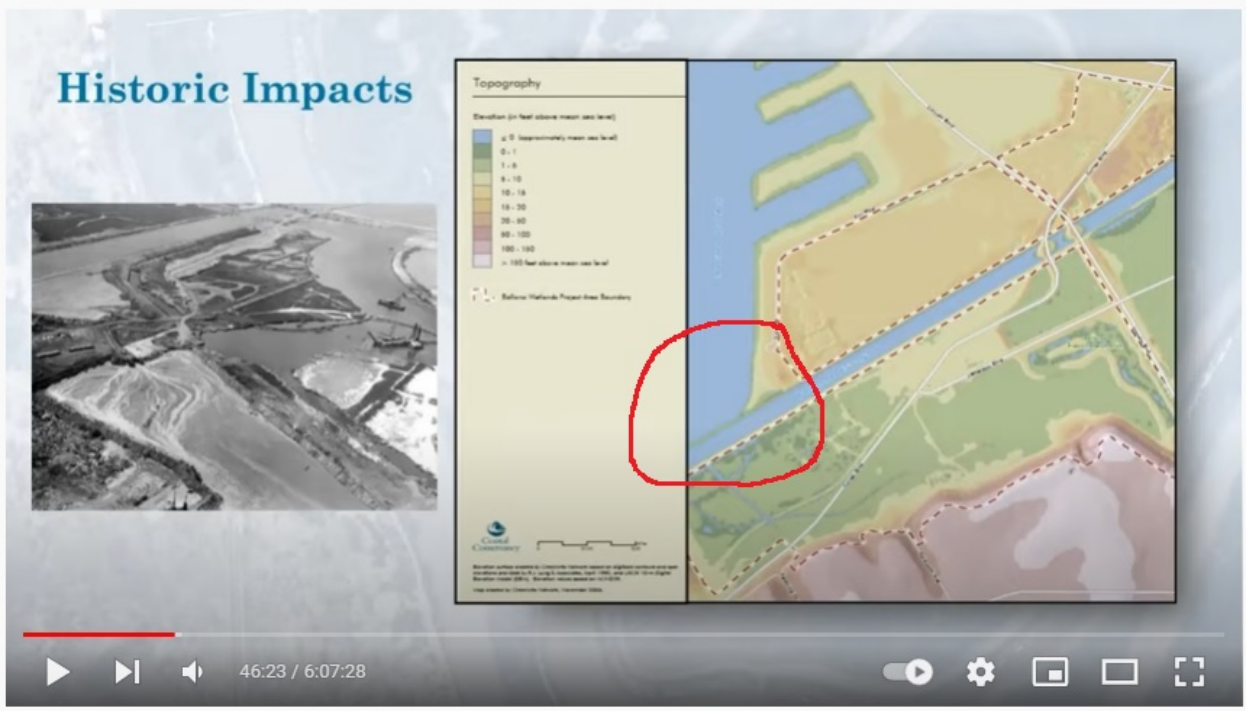
Additionally, replacement wells are planned by SCG. The FEIR shows the placement of these replacement wells within one to a few hundred feet of homes. While cities, state legislators and the public are working toward phasing out oilfield operations, drilling new wells and/or at least having a

2,000 foot buffer zone, the SoCalGas replacement wells' locations contradict current efforts towards safety. The following Links provide SoCalGas/Playa del Rey internal documents that verify contamination to the environment. A timeline of some of SoCalGas/Playa del Rey incidents is provided.

Patricia McPherson regarding SOCALGAS PLAYA DEL REY Operations (Slide Presentation)

GRASSROOTS_COALITION-SoCalGas_PDR-Historical_Timeline-4_page_handout-6-15

Note: Mary Small, Coastal Conservancy Meeting in May 27, 2021 (LINK @ 44:53:00-) provides additional misleading comments while presenting an image she claims shows Marina del Rey dredge fill on top of Area A as she further



Coastal Conservancy Board Meeting May 27, 2021 - Part 1

states that up to 20' of fill deposited upon Area A is the reason it needs to be dug out to remove the fill that turned Area A into uplands. The image she displays is NOT the private Howard Hughes estate landscape having fill placement but is instead a western edge (red circled area added by GC) of the LA County / Federal (USACE) project on County/Federal property that became what we know today as Marina del Rey. Inside the dotted lines is the historic Howard Hughes estate property. Congressional House Document 389 provides volumes and locations of MDR soil used for the creation of the marina's land properties and as part of the Beach Enhancement Program depositing soils to create beaches to the north and south of the Ballona Channel entrance. This Program created miles of new beach area for Santa Monica Bay. The HD 389 document also cites a federal comment-- that the creation of the marina would not affect the private Howard Hughes property -- made in response to concerns raised by the Hughes estate. Mapping performed by T.Huffman in the USEPA Report 1986, and mapping performed as part of a Playa Vista 1990 EIR Archaeology study both provide evidence that Area A (the area Ms.

Small was addressing in her slide above containing an historic photo and a map for her unsubstantiated claim) was not filled with Marina del Rey dredged soil.

- Recording of May 27 Meeting – Part 1

The GSP and GDE need to be based in reality and science and not in hearsay.

INVESTIGATION NEEDS-

Grassroots Coalition (GC) also requests the GSA work to retrieve relevant data that has been omitted and/or not requested, found or even considered. This relevant data would include but not be limited to, LARWQCB freshwater metering and volume dewatering data accrued since 1998 to the present from Clean Up & Abatement Order No. 98-125 and, freshwater dewatering volume and metering data of the Playa Vista gas mitigation system dewatering that is and has been being disposed of via either the City of LA, Sanitation Dept. (including under the auspices of the LA Department of Water & Power) or sent to the ocean via Playa Vista's Freshwater Marsh System (FWM) under various National Pollution Discharge Elimination System (NPDES) permits, United States Army Corps of Engineers (USACE) permits, and California Coastal Commission (CCC) permits.

GC recognizes that, in part at least, many of the GSA omissions may be due to the GSA's focus upon drinking water wells, including but not limited to the lead City of Santa Monica's attention to groundwater remediation programs related directly to drinking water needs. The GSA's Draft focus on drinking water wells has excluded dewatering from groundwater remediation programs focused singularly on decontamination of aquifers, and dewatering under gas mitigation systems, and proposed, future saltwater intrusion plans of CDFW for the Ballona Wetlands area, not specific to current drinking water uses. The LARWQCB's CAO 98-125 has been in operation since 1998, pumping and diverting cleansed groundwater from under Playa Vista within the historic Ballona Wetlands area. Playa Vista then, under NPDES and LA Sanitation permits, disposes the cleansed freshwater into both the sanitary sewer system and the ocean via the FWM and its Main Drain to Ballona Channel which exits in Santa Monica Bay of the Pacific Ocean. Lack of a coordinated agency/ city effort of oversight has likely afforded this outcome of wasting Ballona's freshwater resources as previous environmental agreements with Playa Vista have been overlooked. Much, if not most of this pumped, cleansed and diverted groundwater is not quantified for volume with best available volume metering technology. Metering with best available technology has also not been utilized for the dewatering ongoing since approximately 2000, for the gas mitigation systems under the buildings of the Playa Vista site, according to Public Record Act responses from LA's Dept. of Sanitation.

The lack of relevant water data does not allow for a protective water security strategy for Ballona Wetlands, newly acknowledged by the GSA as a Groundwater Dependent Ecosystem. Instead, the lack of relevant water data is a recipe for the blind decisions and conclusory statements made within the current Draft GSP.

Grassroots Coalition over the past year has attempted to provide information to the GSA for inclusion of Ballona as a GDE and other issues ie. subsidence but, these issues appear not to have been included despite readily available data, and groundwater dewatering volume data retrieval has not been attempted. Dewatering volumes and metering capabilities have not been investigated and documented

for the Ballona region and still needs to be performed. Grassroots Coalition has presented a portion of the GDE dewatering information to the GSA and provides further data support in this response.

The Draft GSP also does not clarify how the GSA intends to wield its powers as they relate to consultation with water right holders or other stakeholders that have both, information to be gathered and/or have not installed best available technology that is required in order to provide reliable groundwater withdrawal volume information**. The data lacking is contained both in NPDES permits and in LA City Industrial Wastewater Permits and do not pertain to established drinking water wells but instead pertain to pumping and dewatering of clean and/or cleansed groundwater under Playa Vista that affect the ecological needs of the GDE known as Ballona Wetlands.**

Contrary to the Draft GSP's comment on page 1-1 which cites that water quality in the Subbasin prior to 2015 need not be addressed, Grassroots Coalition disagrees per SGMA's broader support requirements for use of readily available historical data. The Playa Vista site has ongoing LARWQCB cleanup requirements that have affected the perpetual pumping and diversion of groundwater away from Ballona Wetlands. LARWQCB, in statements made to GC was unaware of the Freshwater Marsh throwaway of water sent into the system. LARWQCB stated that it was unaware of the clay liner of the Freshwater Marsh (FWM) and the HDPE liners in the Riparian Corridor, both of which were designed to act to preclude the cleansed freshwater from percolating downward into the underlying aquifers. LARWQCB also stated to GC that it was unaware of the cleansed freshwater sent into the FWM as ultimately being thrown away into the ocean via the Main Drain of the FWM that empties into the Ballona Channel which exits to the Pacific Ocean**. In short, a lack of coordinated effort of protection to Ballona's freshwater resources and needs as a GDE have become absent, eroding from at least since 1998 to the present.**

The Santa Monica Subbasin is categorized as having medium priority status. This status was determined ostensibly for human drinking water purposes as this has been the focus by the GSA. Grassroots Coalition believes that the inclusion of its GDE, Ballona Wetlands adds to the exigency of protection to this Subbasin and potentially a higher status rank**. The Ballona Wetlands Ecological Reserve was acquired into public trust in 2004, costing $140 million for its acquisition alone. Millions more have been allocated for its study and restoration. It's status of Ecological Reserve (CCR Title 14, Section 630) is the highest protective status available to the state and was applied by the Wildlife Conservation Board in 2003/4 with the legal Purpose and Goal of protection to its freshwater resources and saltmarsh aspects with the added endangered species, Belding's Savannah Sparrow habitat as an additional focus of protective need.** (Wildlife Conservation Board Section 630, Purpose and Goal language)

1. California Regulatory Notice Register 2005, Volume No. 20-Z, Starting on page 663 Ballona Wetlands Ecological Reserve
https://www.dhcs.ca.gov/services/medi-cal/Documents/AB1629/ZREG/ZREG%2020-Z_5.20.05_notice.pdf

This unique, exceedingly rare, predominantly seasonal freshwater wetland (Historical Ecology of the Ballona Creek Watershed, Longcore et al) must be protected but has fallen through the cracks of drinking water focus, leaving it unstudied as a GDE.

1.3.2 Legal Authority of the Groundwater Sustainability Agency (DRAFT GSP Pg. 3 0f 6)

" The City of Santa Monica is the only local agency that currently produces groundwater from the Subbasin." And, " More recently, this management has included coordination with the SWRCB, the DDW, and the RWQCB to remove industrial pollutants that have contaminated the groundwater in the Subbasin."

It appears that the industrial pollutants described above are confined to the City of Santa Monica and its interests, namely the MTBE contamination. There appears to be no cumulative discussion by the GSA of the groundwater contamination pumping and throwaway of cleansed freshwater from the Subbasin area of Playa Vista which is overseen under the LARWQCB's CAO No. 95-125 into either the ocean and/or the LA Sanitary Sewer system under Industrial Wastewater permits and NPDES permits. There is also no discussion of impacts that may or may not be avoided due to implementation of the approved CDFW Plan contained within their FEIR for Ballona Wetlands Ecological Reserve which proposes to convert the Ecological Reserve, the GDE, into a new, full tidal saltwater embayment.

"…*the analyses conducted as part of the GSP suggest that the current and planned future groundwater production are within the estimated sustainable yield of the Subbasin, future demands not anticipated in the GSP may necessitate the adoption of measures to restrict groundwater production. These measures may include, but are not limited to, regulating, limiting, or suspending groundwater extraction from individual wells or wells in-aggregate, imposing extraction fees on groundwater producers in the GSA area, and developing a groundwater allocation."* Draft GSP

The comment in the Draft GSP is concerning due to:

1. The statement above suggests that current and future production (and ostensibly planned intrusion by saltwater) have not been taken into consideration pertaining to any of the GDE area sustainable yield needs within the Subbasin. The GDE is not mentioned here and the lack of anticipation of needs for potential restriction of groundwater and/or surface water removal from the GDE/ Ballona Wetlands is not discussed. Harm to Ballona's hydrology is already documented by CDFW via the Betty Courtney letter to Playa Vista/ Ballona Conservancy pertaining to harming Ballona's hydrology due to the restriction of freshwater into the Freshwater Marsh System; and the CCC acknowledgement of harm to Ballona's hydrology caused by both CDFW and Playa Vista (Ballona Conservancy) unpermitted drainage of ponding freshwater on the Ecological Reserve via unpermitted drains. USFWS, in their comments to the Draft EIR also cite that the freshwater diversions away from Ballona need to be stopped to return the freshwater to Ballona Wetlands Ecological Reserve.
2. The comment from the Draft GSP above, also suggests the legal ability of the GSA to potentially alleviate negative impacts of freshwater withdrawal, and diversion away from the GDE which is important however, currently the comment cites current and future groundwater production as being within a sustainable yield. This conclusory statement excludes analysis of the freshwater depletion occurring via NPDES and Industrial Wastewater Permits. Once again, the focus is demonstrated upon drinking water and not upon the groundwater depletion occurring outside of drinking water wells and the subsequent negative impacts upon Ballona Wetlands and the freshwater aquifers. Certainly, Grassroots Coalition believes that, at the very least, the issues of pumping, diversion and wasting of Ballona's freshwater as well as ramifications of the approved CDFW Plan, need investigation and address by the GSA which has not yet occurred.

The Draft GSP also opines and defines the exclusion of *"de minimis wells"* which the Draft GSP explains as wells from which 2 acre-feet per year or less of groundwater is produced. Grassroots Coalition believes that without an understanding of the GDE needs, and the clean freshwater that is readily available to it but is being diverted away, there is no prudent evaluation of *'de minimus'* dewatering and/or diversion either explained or considered in the current Draft GSP. This informational gap needs to be filled with the cogent available information in order to establish an informed decision.

The Draft GSP's Figure 1-1 is inaccurate per the Ballona Wetlands Ecological Reserve as it excludes the portion north of the Ballona Channel known commonly as Area A. The map is also in error per the FWM portion of the Ballona Wetlands as the FWM has been removed from the Ecological Reserve's boundaries while it is still Public Trust land under the stewardship of the State Lands Commission.

Below: August 31, 2021 SCP No. 0773 of Los Angeles Regional Water Quality Control Board's Clean Up & Abatement Order (CAO) No. 98-125, originally dated Dec. 22, 1998.

"The submittal of the technical reports above by the specified due dates constitutes an amendment to the requirements of CAO No. 98-125, originally dated December 22, 1998. All other aspects of CAO No. 98-125 originally dated December 22, 1998, and any amendments thereto, remain in full force and effect. Pursuant to section 13350 of the California Water Code, failure to comply with the requirements of CAO No. 98-125 by the specified due date, including dates in this amendment, may result in civil liability administratively imposed by the Regional Board in an amount up to five thousand dollars ($5,000) for each day of violation. In addition to the requirements of CAO No. 98-125 and all amendments thereto, Playa is responsible for compliance with applicable local, state, and federal permits or other requirements and conditions imposed by any other regulatory agency, for the actions described above. Such requirements and conditions include mitigation measures and mitigation monitoring and reporting associated with the Environmental Impact Report and other approvals for the project."

The LARWQCB, has undertaken numerous soils and groundwater investigations on Parcels A, B, C, D formerly owned and operated by the Howard Hughes Company and included the MacDonnell Douglas industrial complex of both aircraft industries located in Area D. All of the parcels comprised the Playa Vista development site**. A,B,C are now Public Trust property areas of Ballona Wetlands that have been given No Further Action (NFA) designations to signify the property as clean and in need of no further actions of remediation. The Ballona Channel is not part of the Ballona Wetlands Ecological Reserve but is owned and operated by the federal government via USACE and by the County Flood Control District of Los Angeles. The Ballona Channel is an impaired waterway in need of remediation and TMDL discussions are directed to the Channel water, not the clean groundwater that is in the Ballona Ecological Reserve.**

Should the CDFW Plan for digging out Ballona occur, with the removal and perimeter replacement of the levees, the toxic Channel water flows would enter into and comingle with the NFA AREAS of Ballona Wetlands Ecological Reserve. Not only would the clean groundwater of Ballona, inclusive of its freshwater aquifers, be exposed to toxic Ballona Channel water flows but these currently clean areas would be exposed to contamination by saltwater intrusion and the Santa Monica Bay's own toxic effluent.

Groundwater Dependent Ecosystem

Ballona as a GDE extends the entirety of the Ballona Wetlands Ecological Reserve and the Ballona Wetlands Public Trust lands and waters. https://www.flickr.com/photos/stonebird/2389712523

USFWS has also expressed a desire for the GDE investigation to occur and for the study to include the diversion of groundwater away from Ballona Wetlands stemming from Playa Vista's dewatering and diversion of groundwater away from Ballona Wetlands/ Ballona Wetlands Ecological Reserve. (CDFW C. Medak Letter to LARWQCB 2021)

The following link provides pertinent issues of the GDE to the Santa Monica Bay Restoration Commission. https://www.youtube.com/watch?v=pSmNLiXaO7Q Dr. Margot Griswold 10/22/20 discussion of Ballona for the Santa Monica Bay Restoration Commission.

The current Draft GSP only identifies some 40 acres of the Ballona Wetlands as Groundwater Dependent vis a vis an extremely narrow context. We believe that the identification is a starting point only as cited by the explanations for use of the NCCAG Data Set index, including its many disclaimers that point out the Data Set is not meant to represent any specific GDE but is intended as a starting point only. Grassroots Coalition also supports the comments and evaluations of Margot Griswold PhD, a leading state of California Restoration Ecologist. Dr. Griswold asserts, as provided in links contained herein, that the entire Ballona Wetlands Ecological Reserve is a Groundwater Dependent Ecosystem.

Below, provided by Ballona Ecosystem Education Project, a 501c3 with over 30 years of experience and documentation of Ballona, is their website portion containing vegetation information of Ballona Wetlands Ecological Reserve.

http://ballonaplants.blogspot.com/2006/09/complete-list-of-native-plants-of_22.html

Ballona Wetlands is a complex wetland, upland, ecosystem that supports a myriad of endangered and imperiled species, both in wildlife and vegetation. After decades of struggle and litigation to acquire Ballona Wetlands, it was finally acquired via public bond funds and was dedicated the highest California protective status, under Title 14, Section 630 as a specific Ecological Reserve with specific Purpose and Goals as can be viewed in the Regulatory Notice Register.

1. California Regulatory Notice Register 2005, Volume No. 20-Z, Starting on page 663 Ballona Wetlands Ecological Reserve

Additional links and background information pertaining to Ballona Wetlands are included in the document :

Stop drying out Ballona Wetlands Ecological Reserve! Stop Playa Vista's confiscation and throw away of Ballona's freshwater resources.