

10/9/18 AGENDA, ITEM 6a - THE GREENBELT INFILTRATION PROJECT  
SUPPLEMENTAL LETTER FROM TRACIE AND GREG MAFFEI SUBMITTED TO  
THE CITY COUNCIL ON 10/9/18 AT 11:13 A.M.

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October 9, 2018

Hermosa Beach City Council  
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Dear Council Members,

On October 9, 2018, the City Council is being asked, once again, to address the proposal to build a massive water infiltration project in Hermosa Beach. Council is asked to consider alternative sites within Hermosa Beach or, alternatively, to direct the exploration of sites outside of Hermosa Beach in order to comply with the Enhanced Watershed Management Plan (“EWMP”) the City first authorized on June 23, 2015 and the terms of the MS4 permit authorized under the auspices of the Los Angeles Regional Water Quality Control Board (“Regional Board”). Also included in the Staff Report are various statements regarding the additional funds that will need to be allocated for the City’s existing engineering firm, Tetra Tech, to conduct additional site analyses, including geotechnical surveys.

As concerned residents and voters, we have now spent many hundreds of hours reviewing the record associated with the EWMP and the City’ Council’s voting record on these issues, as well as numerous staff reports provided to Council in conjunction with those proceedings; discussing the engineering issues with experts in the field; attending several meetings with City staff; and attending the Council’s recent tour of the Manhattan Beach and Bolivar Park infiltration sites.

In our considered opinion, the Council has no other option but to vote to split this massive project in a more equitable distribution among multiple sites across the various jurisdictions with watershed source responsibility for the Herondo Street storm drain. As detailed below, this equitable division is exactly what the original EWMP working plan proposed in June 26, 2014. And yet, by the time a draft of the EWMP was actually presented in 2015, the project had morphed into a massive, one-shot effort to infiltrate all 7.6 acre feet of water in a single project

on the Hermosa Beach Greenbelt—the most densely populated of all the South Bay cities in the watershed and the 60th most densely populated city in all of Los Angeles County (See Los Angeles Times Population Density Map at <http://maps.latimes.com/neighborhoods/neighborhood/hermosa-beach/>). Furthermore, any development of any project within Hermosa Beach’s boundaries must be preceded by adequate engineering studies by a neutral, third party engineering firm that does not have a financial stake in completing the project within the City’s boundaries (*i.e.*, Tetra Tech). Those studies must expressly take into account the impacts of any project on the people who will live within feet of any proposed construction or infiltration, as well as the surrounding structures that may be impacted by any such construction or infiltration project—work that has never been done at any point in this process.

### **Background Information: Project History and Scope in Context**

Before detailing the basis for my recommendation above, we think it is important to review some of the history of this project to give context. We do not engage in this exercise to point fingers. Rather, the point of understanding past failures is to ensure that one is not doomed to repeat them. We are at a critical juncture. Council can either continue to forge ahead with the project with its current scope threatening the safety of residents and their homes and exposing the City to massive future liability and numerous lawsuits. Or, the Council can take the courageous and informed step of going back to its partners in the EWMP and explaining why the project as it is currently contemplated simply will not work from a legal and engineering standpoint and then engage those partners in a feasible and legally tenable solutions that will comply with the MS4 permit and ensure our oceans are cleaner.

As the October Staff Report indicates, in February 2013, the Council authorized joining a watershed group comprised of Torrance, Redondo Beach and Manhattan Beach, and developing the EWMP to comply with the Regional Board’s MS4 permit. This decision made sense at the time, as it gave the City additional time to meet water quality goals than it would have had on its own, allowed for joint financial responsibility for projects, and gave Hermosa Beach an avenue to comply with the permit requirements with water quality modeling, as opposed to just strict testing requirements, which may have proved more onerous than modeling. Council then entered into an MOU and city staff began working with EWMP lead, Redondo Beach, to develop the EWMP for submission to the Regional Board for approval.

A June 26, 2014 work plan regarding proposed Regional BMPs proposed at least three separate locations to address the Herondo drain: the Hermosa Beach Infiltration Facility, located at the intersection of Herondo Street and the Strand, with a treatment volume of 2.7 acre feet of water; the Hermosa Beach South Park sub-surface infiltration gallery, with a treatment volume of 1.9 acre feet of water; and the Herondo Parking Lot detention basin an infiltration project located in Redondo Beach, with a treatment volume of 2.7 acre feet of water. (See attached chart, Attachment C to Draft Enhanced Watershed Management Program Workplan, available at [https://www.waterboards.ca.gov/losangeles/water\\_issues/programs/stormwater/municipal/watershed\\_management/beach\\_cities/index.html](https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/beach_cities/index.html)). By June 23, 2015, however, the draft EWMP no longer proposed splitting water responsibility across jurisdictions. Now the draft called for infiltrating all 7.6 acre feet of water on the Greenbelt in a massive underground infiltration gallery. To put these numbers in perspective, Hermosa Beach is the smallest contributor to the watershed addressed in the EWMP, with 5% total source responsibility, as compared to Manhattan Beach (16%), Redondo Beach (25%) and Torrance (53%) (See March 2018 EWMP Table ES-1 at p. ES-3), but 7.6 acre feet of storage capacity represents the largest capacity project for any of the individually-sited proposed BMPs.<sup>1</sup> Ultimately, this plan with the Greenbelt infiltration project as the main Regional BMP for the Herondo storm drain outfall was included in the EWMP that the Hermosa Beach City Council voted to approve and submit to the Regional Board.

Notably, residents near the Greenbelt project were never provided any mailed notice of this proposed project during this stage of the process; no citizen groups were engaged to determine where it might be appropriate to place any of the proposed projects at any stage of the development of the EWMP; and the city council agenda descriptions simply refer to the EWMP and the vote, with no detailed description of the site location. Rather, one would have to skim through EWMP

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<sup>1</sup> Green street initiatives have larger storage capacity, but they are also spread out over numerous streets in a jurisdiction. Hermosa Beach's proposed Greenbelt project proposes to hold 7.6 acre feet or 319,000 cubic feet of water per storm surge (or 2.4 million gallons of water). The closest similar project proposed in the EWMB is one of three alternative infiltration projects being concerned for a different storm drain in Manhattan Beach, which proposes 198,000 cubic feet of storage (or 1.4 million gallons of water). Redondo Beach's only currently proposed site for treatment of water along the Herondo drain, other than Green Street initiatives, is in Park #3 (Perry Ellison playfield on 190th Street), with 87,100 cubic feet of storage (or 651,000 gallons). (See EWMB Table ES-5 at p. ES-13).

to determine the Greenbelt was in play for a project like this—not an easy task given the fact that the printed out version of the June 2015 draft EWMP is 12 inches thick. Later votes on the MOU, the Tetra Tech RFP and an ambiguous “stormwater update” similarly avoided references to the address of the site, its size and scope, and failed to include mailed notice to residents—failures that we citizens have previously noted in a June 17, 2018 correspondence to the City Council constitute violations of the Brown Act’s notice requirements.

It is also notable that initial engineering studies conducted by Geosyntec identified a number of what should have been red flags about proceeding with a large infiltration site on the Greenbelt, including liquefaction in two borings (for which they advised further study), and high groundwater levels up to 24.5 feet during their single boring test in March 2017. Unfortunately, these issues were never addressed to the Council at any point, and the Council was asked to proceed with a vote on the RFP for the design firm for the project, with Tetra Tech winning the award and moving forward with a design for the Greenbelt.

One of the reasons a law like the Brown Act is so important, particularly in an area where we live where we have so many engaged and intelligent residents, is that it taps into our community’s network of expertise. I urge you not to discount the learned opinions of people like our friends and neighbors, Alex Reizman and Debbie Sanowski, who have spent countless hours reviewing the legal and engineering records for this project, locating errors and concerns about this project that were not addressed by the City’s own consultants.

Unfortunately, the community has been late to the party in part because the first notice any of us had about this project was a March 2018 notice soliciting input regarding “amenities” to be included on the Greenbelt after project completion. After residents raised concerns about the project, the City Council scheduled the June 19, 2018 study session. Interim City Manager John Jalilli then engaged a small group of homeowners from the Mooring, Beachside Condominiums and Cochise Condos (which the Staff Report erroneously characterizes as the “Mooring HOA”), and requested that we put together some alternative locations that might be acceptable for the project and for staff and Council. Those are the only project locations that staff mentions in its current report. No alternatives are proposed based on staff’s own research other than three alternatives within Hermosa Beach which were already addressed during the June 2018 study session. The only thoroughly discussed proposals are the four sites located in Hermosa Beach,

and no additional engineering studies have been done that might shed light on the suitability of those sites for a project of the scope proposed for Hermosa Beach.

Given this history, it is now critical that this City Council listen to what the residents and voters of Hermosa Beach are saying in criticism of this project—particularly those of us who have spent countless hours looking very carefully at the record. And while we appreciate the fact that the City acknowledges that the criteria for selecting the project did not properly account for population density and the impact of the project on nearby residents, that acknowledgment means nothing if the Council does not act to place a more reasonably scaled project in a location that is both technically feasible and appropriate to the size and density of our City.

### **Hermosa Beach Infiltration Proposals**

Each of the four alternatives proposed within Hermosa Beach either have serious technical problems or lack sufficient data to allow them to be selected by the Council at this time.

#### **Greenbelt**

In a June 17, 2018 letter, it was pointed out the many problems with using the Greenbelt for an infiltration site of this size. I reiterate those concerns here, but also wish to address how Tetra Tech's most recent presentation at the June 2018 study session failed to address any of the concerns residents raised concerning the problems with the Greenbelt site.

Among those issues, the high groundwater levels mean that pollutants cannot be properly infiltrated and may lead to groundwater contamination, pooling and odor. These issues were already thoroughly detailed in Mr. Reizman's June and October letters to this Council. Tetra Tech's proposed solution to the groundwater levels, mentioned in passing and without much clarity at the study session, is to simply seek a "waiver" of the 10 foot buffer requirement between the bottom of the infiltration gallery and the water table. That "solution" is utterly unacceptable and poses incredible risk and liability to our City and its residents, not to mention our groundwater quality. The fact that Tetra Tech also made an obvious mathematical error in its calculation of groundwater levels by failing to account for the elevation of the nearest historical well data in comparison to the Greenbelt's elevation causes us to question ALL of their conclusions regarding the viability of the Greenbelt.

Tetra Tech's response to the question of liquefaction is similarly misleading. Notwithstanding the fact that an out-of-date map from 1999 states that the Greenbelt and other sites within Hermosa Beach are outside of a liquefaction zone, Geosyntec's own limited boring sample show liquefaction risks for 2 out of 6 borings, as well as possible subsidence in the mulch path of as much as 7 inches.<sup>2</sup> Tetra Tech even admits in its slides during the study session of subsidence of 6.9 to 9.6 inches. Tetra Tech's conclusions about how it can engineer the infiltration structure itself to withstand an earthquake does nothing to address the concerns nearby residents have regarding their homes withstanding an earthquake after water from the infiltration gallery spreads out underneath their foundations. Many of Tetra Tech's other assertions about liquefaction and its impact on surrounding structures are suspect. There seem to be a number of assumptions they are making regarding impact of the flow of groundwater on adjacent structures without additional testing, and hydrological models Tetra Tech has been using have not been made publicly available for error-checking. Data trumps speculation and outdated assumptions based on old liquefaction maps, and neither Tetra Tech nor any other engineering company has ever conducted an actual analysis of what 2.4 million gallons of water being pumped into the groundwater will do to surrounding structures within 10 to 15 feet away from the infiltration gallery. We do not want to risk massive liability to the City and our neighbors' homes and families based on the limited testing done to date on this site on the issue of liquefaction, subsidence and structural impact.

Neither Tetra Tech nor the City has done any analysis, and did not even bother to address at the June 2018 study session, the possible risks to nearby residents' homes during construction itself. Some of our residents and members of the City Council toured the Bolivar Park site. The photographs from that presentation were more than disturbing when one takes into account that homes on the Greenbelt are only 10 to 15 feet away from the proposed trench and heavy equipment. In contrast, Bolivar Park homes were 50 feet or more from the field in which that infiltration gallery was built, and no pile-driving was used at that location, as likely would have to be used on the Greenbelt given the narrow space constraints.

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<sup>2</sup> Equally concerning, City Staff asserts in its report that there is no liquefaction risk either at the Greenbelt or any of the alternative sites in Hermosa, without any support for that statement. The Geosyntec borings themselves belie this statement and no soil samples regarding any other alternate location in Hermosa Beach has been conducted to verify this unfounded statement.

Tetra Tech’s post-infiltration “trailhead-after” pictures are highly misleading. I am concerned that Tetra Tech’s design (which has not been publicly disclosed) will attempt to address high historic groundwater at the Greenbelt site by minimizing soil on top of the structure itself, which will prohibit the type of tree growth the Greenbelt currently enjoys. Notably, the main trees for which Tetra Tech’s design proposes removal include the 13 very tall Torrey Pines, which are protected species. None of the proposed tree species listed in Tetra Tech’s list of trees to be used as “native” replacements are of the same size. Most are smaller bush-like trees, with the exception of a single eucalyptus species. So our lush Greenbelt with its beautiful Torrey pines will be replaced with smaller species that do not enjoy protected status.

The replacement of the current lush Greenbelt environment with what will undoubtedly be a moonscape for some time to come is also highly concerning because voters in Hermosa Beach voted to preserve the Greenbelt when they agreed to purchase the space, and zoning limitations are highly restrictive. We have reviewed the cursory opinion letter provided by the City Attorney to staff regarding the legality of putting an infiltration gallery of this size under the Greenbelt, and the opinion is both based on false technical assumptions that this infiltration project has something to do with preventing seawater intrusion (it does not) and that this huge infiltration gallery can be construed as a utility. These readings are neither consistent with the language of the zoning statute or the history of the protection of Hermosa Beach’s Greenbelt. Moreover, above-ground structures are clearly prohibited under the law, and above-ground structures such as electrical rooms for pumping stations are planned in Tetra Tech’s models—a clearly non-permitted use of the space. Just from a common sense perspective as well, razing the Greenbelt to build a massive trench and drop infiltration galleries in the ground with cranes, and then covering up that trench with a small sampling of dirt and replanting “native” shrubs and plants will forever change the Greenbelt in this area in direct contravention of voters’ wishes when they voted to preserve this space.

### **Alternative Hermosa Beach Sites**

Many of the alternatives proposed by staff in the staff report suffer from either a severe absence of data or simply pass the buck to neighbors further down the road from the current location, with the same or worse host of potential problems.

No soil tests have been done to ascertain groundwater levels or liquefaction for the Greenbelt outside of the Cochise townhomes, but those homeowners are just as close to the proposed project as the Mooring owners to the current design and the same concerns regarding impact of water flow to their residences also exist, as does concerns regarding damage during construction. Given the well data up the hill, the historic groundwater levels present the same problems for that alternative. No arborist study or assessment of the impact on protected trees has been conducted. And the Greenbelt zoning issues remain the same for this location as with the current location.

**Moving the project to South Park is not a panacea either. Almost 10 years of time and effort from wonderful members of our community (South Park Moms) to produce a park for children of all types, including disabled children, will go to the wayside if a project like this is adopted. One of the alternatives proposes a pump station above ground on the Greenbelt, which is a prohibited use. The proposed pipeline will still cause the Greenbelt to be dug up for a substantial distance with an unknown impact on trees, including the Torrey Pine protected species with their deep root systems that extend into the mulch trail south of South Park. South Park's hill is included in a landslide risk area, and no studies have been done to ascertain risks from a massive infiltration gallery on that geotechnical issue. No soil samples to determine groundwater levels or liquefaction concerns have been done. Finally, multiple units from Pacifica Villas are very close to the proposed construction area. Without further data, it is simply impossible to evaluate this site except to note that a project of the size of 7.6 acre feet still poses considerable risks. Certainly, the City should not select this location without substantial additional engineering analyses, and that should be conducted by an engineering firm other than Tetra Tech, which has a financial stake in completing this project.**

### **Redondo Beach Sites**

One of the proposals during meetings with city staff concerning projects outside of Hermosa Beach that appears to have been misconstrued in the staff report includes the viability of building a recycled water facility to reuse 100 percent of storm drain water for anticipated future parkland in Redondo Beach at either or



both of AES or the power corridor. Santa Monica built a similar system in early 2000's for a cost of approximately \$12 million, creating a state-of-the-art recycling system using storm drain water that it then uses to irrigate parks and for flush toilets. (See Fact Sheet available at [https://www.smgov.net/uploadedFiles/Departments/OSE/Categories/Urban\\_Runoff/UR\\_SMURRF\\_Info\\_Sheets.pdf](https://www.smgov.net/uploadedFiles/Departments/OSE/Categories/Urban_Runoff/UR_SMURRF_Info_Sheets.pdf)). Tetra Tech is currently building a pretreatment and storage facility under a parking garage for a separate storm drain in Santa Monica that is diverted to that city's recycling center for reuse. (See <http://www.tetrattech.com/en/multimedia/recycling-stormwater-to-protect-our-beaches> and <https://www.nbclosangeles.com/news/local/Santa-Monica-Aims-to-Convert-Polluted-Runoff-From-Foe-to-Resource--481327001.html>). Storm drain water is pumped as far as a half mile to the recycling center for processing, and comes from multiple storm drains.

We and others in our small group had proposed to city staff that a possible forward-looking solution to the Herondo storm drain is for Redondo Beach to incorporate the drain water into a recycling solution that could be used now or in a future wetlands restoration or parkland irrigation project being discussed for the current AES site that will be mothballed in 2020. The beach at the drain outfall location would be one possible location, but other locations could include the Redondo marina area or underneath parking areas along the marina. When it became clear that Dominguez Park's history included landfill, making infiltration inappropriate, we also suggested that the City explore a recycling option at that location as well. **None of these ideas have been pursued by staff.**

In addition, it is disturbing that the SCE easement has always been touted as an alternative location to the Greenbelt for this large project, including in the current edition of the EWMP from 2018. And yet, it appears that staff's only actions to pursue such an easement include a single email to an agent for Redondo Beach who does not appear to be given much information and may not be the appropriate stakeholder to make a decision about the easement's propriety in any event. Furthermore, it is interesting that power line easements are proposed for several BMP's to address the Dominguez Watershed, which is also part of the EWMP, although not one for which Hermosa Beach has responsibility. Those projects also propose "pass-through filtering" once it was determined that infiltration itself was not viable in those locations. (See 2018 EWMP at 3-43). It is unclear why Manhattan Beach and Redondo Beach are able to pursue such an easement and a viable alternative to infiltration for one of their significant projects in the Dominguez Channel watershed, while Hermosa Beach is being required to forge ahead with a manifestly improper infiltration project without properly exploring

an easement with SCE/Redondo Beach and alternatives to infiltration given how problematic groundwater levels are so near the beach.

**Finally, the Francisca site discussion notes that AES is an active DTSC COC site, and questions feasibility for infiltration in light of that pollution. And yet, the Greenbelt site itself is across the street and uphill from that site, and I have seen no studies that evaluate any possibility for water flow impacting pollution at that site notwithstanding its proximity. This discrepancy not only calls into question the validity of the Greenbelt site, but also makes us question why issues such as pollutants are addressed as to Redondo Beach locations, but not with respect to our own City's proposed infiltration site.**

### **Solutions for the City Council**

Given the concerns voiced by so many residents of Hermosa Beach concerning the real problems with housing an infiltration project of this size in Hermosa Beach at any of the proposed locations, the question remains what should the City Council do on Tuesday if none of the options are viable. **Part of the reason that none of the solutions posed to the Council are viable is that the project itself is simply too large given our small city's size, density and proximity to the beach, not to mention our total overall percentage of source flows into the watershed itself.**

A smaller project, such as the proposed infiltration trench in Hermosa Beach, makes the only sense given these realities. Addressing the Herondo Street drain in one big lump project at the end of the drain line may have made sense to some engineer or consultant who looked at this project back in 2015, but whoever made that decision did so in a vacuum.<sup>3</sup> The reality is that there are two cities at the end of the storm drain, and Redondo Beach is one of them. It needs to also take on its proportionate share of responsibility for this drain, and its small "Park

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<sup>3</sup> I also note that the Staff Report indicates a 2016 Geosyntec report concerning sea level rise analyses may have changed certain assumptions regarding the water treatment volume that can feasibly be addressed at the Herondo parking lot location. However, pushing the excess volume into Hermosa Beach as a consequence is not an acceptable solution to that issue. Moreover, the Greenbelt has similar issues with groundwater levels making a large project untenable, but notably, no proposal was ever made to restrict the size of Hermosa's project as a consequence. These inconsistencies with how different projects have been handled in different jurisdictions is disturbing, to say the least.

#3” project is not representative of that share. We urge City Council members to state on the record that the only feasible way to address this watershed is to address it through multiple project locations (as was originally contemplated in early working versions of the EWMP), and that it will be requesting Redondo Beach to look for alternatives in its own jurisdiction to handle its proportionate share of watershed contributions.

In addition, any project that does take place in Hermosa Beach of a smaller and more appropriate scope must first be assessed with proper engineering analyses that take into account impact on nearby, existing structures.

Finally, while we acknowledge the fact that hypothetically the Regional Board has in its toolkit various fines that it can assess for failure to comply with the MS4 permit, we find the assessments of the probability of such fines in the current Staff Report and in prior council meetings to be lacking. We have yet to see an evaluation by the city attorney that details what the actual risks are of such fines, when a violation of the permit occurs such that a fine would be anticipated, and whether such fines are apportioned across all watershed members. The permit language itself states that violations of pollution standards may yield some fines by the Regional Board, but it is unclear given exceedances for bacterial levels in effect and the improving water quality marks in recent years that the risks of fines are imminent. Moreover, the deadlines at issue are certainly extendable as the Regional Board has done so in the past with other projects (*i.e.*, 2017 Trash TMDL extensions were granted by the Regional Board). Certainly, the Regional Board would rather have a viable project in design and construction that portends immediate improvement with bacterial levels in the oceans (*i.e.*, moving forward with a project on the Hermosa Beach strand in the near term), rather than awaiting the results of delays from litigation that may span years while this ill-conceived project is litigated in courts--the likely event should this council not heed the call of residents with valid objections to this behemoth project, executed without proper notice to Hermosa Beach residents or appropriate engineering studies.

We also do not think it is in the best interests of this City and its taxpayers to proceed with a plan with obvious problems and potential massive liability for the City, while two years remain prior to the originally proposed 2021 deadline to properly analyze more effective alternatives with proper study and community input. There certainly is no room for dilly-dallying on these issues, but rushing

to judgment to avoid hypothetical fines, only to expose our taxpayers to tremendous liability and risk down the line, is not an answer.

Thank you for taking the time to address the concerns that we and other residents have raised.

Respectfully yours,

Tracie and Greg Maffei