City of Newport Beach
Water Quality/Coastal Tidelands Committee Meeting Minutes

Date: November 3, 2016
Time: 3:00 p.m.
Location: Crystal Cove Conference Room, 100 Civic Center Drive, Newport Beach, CA 92660

Meeting Minutes prepared by: Raymund Reyes

1. The meeting was called to order at 3:00 p.m. by Chairwoman Diane Dixon.

2. **Welcome/Self Introductions**

Committee Members present:
Mayor Diane Dixon, Chair
Councilman Duffy Duffield, Vice Chair
George Robertson
Lou Denger
Dennis Baker
Tom Houston
Fred Galluccio
Carl Cassidy

Committee Members Absent:
Mike Melby

Guests present:
Jack Skinner, SPON
Nancy Skinner, SPON
Nancy Gardner, Orange Coast River Park
Billy Dutton, Help Your Harbor
Jim Mosher, Resident
Mark Ward, Help Your Harbor
Philip Bettencourt, Newport Banning Land Trust
Ali Fayad, OC Public Works
Vinny Hoang, OC Public Works
Monica Mazur

Staff present:
John Kappeler, Senior Engineer
Mark Vukojevic, Deputy Public Works Director
George Murdoch, Municipal Operations Director
Steffen Catron, Utilities Manager
Hazel McIntosh, Student Aide
Raymund Reyes, Management Specialist

The agenda for the Water Quality/Coastal Tidelands Committee was posted at 1:07 p.m. on October 31, 2016, in the binder located in the entrance of the Council Chambers at 100 Civic Center Drive.

3. Public Comment on Agenda Items

None.

4. Approval of Previous Meeting's Minutes

A motion to approve the October 6, 2016 minutes was made. The motion was approved.

5. Current Business

(a) City of Newport Beach Sustainability Plan

Nancy Gardner and **John Kappeler** lead a discussion on the various comments provided by Committee Members on the City's Sustainability Plan. **Dennis Baker** asked a procedural question and inquired about the plan's status. **Nancy Gardner** noted that the plan was not yet accumulative. **Tom Houston** objected to certain aspects of the alternative transportation portions of the plan, noting legal and safety issues. Nancy Gardner responded, indicating that alternatives (such as bike lanes) would be recommended where feasible. Sustainable development to counter congestion was also discussed. **Mark Vukojevic** indicated that meeting transportation needs and goals was a balancing act for the Public Works Department. **Jim Mosher** mentioned that the water conservation section of the plan was lacking in substance. **Diane Dixon** wished to see more information on accountability, overall goals, and the economic benefits of sustainability. **Mark Vukojevic** commented that the City was already doing some of the actions indicated in the plan. Additional comments followed, including discussions of implementation, whether or not the Committee should focus on the water-quality component only, and if the plan should stand alone or be included as part of the General Plan. **George Robertson** remarked that the City should not be a silo amongst other cities, but also provide correlation to regional plans. **George Murdoch** provided recommendations on how to move forward with the plan. **Diane Dixon** inquired about new versus existing elements of the plan. **Nancy Skinner** asked about permeable pavement. **Dennis Baker** asked about a tie-in between grants and the plan. **Tom Houston** asked for an explanation of traffic light synchronization. Diane Dixon concluded the discussion and asked that all other comments regarding the plan be submitted to staff.

(b) City of Newport Beach Recycled Water Master Plan

George Murdoch gave a presentation on the Recycled Water Master Plan. **Mr. Murdoch** began with a comparison of the generic definition of reclaimed or recycled water versus the California Code of Regulations definition. He then provided background on the Orange County Water District (OCWD) recycled water system and the Green Acres Project (GAP.) **George Murdoch** noted that OCWD had asked other agencies if and how they should continue the GAP. **Dennis Baker** asked about the higher cost of recycled and reclaimed water. **Diane Dixon** asked if any cities were looking into their own systems, and if the Irvine Ranch Water District (IRWD) would expand their pipes. **Fred Galluccio** inquired about electricity costs and alternative energy options. George

Murdoch explained that recycled water systems were costly systems to create and maintain, and that such systems need much more power than solar (or any other alternative source) could provide. **Mr. Murdoch** went on to discuss OCWD board actions, including Resolution No. 16-09-126, which authorizes negotiation of GAP sales and distribution agreements. Further discussion was centered on recycled water program costs and expansion, including regional and local challenges. **Diane Dixon** asked about Committee and City responsibilities; **George Murdoch** stated that there should be a focus on wastewater, irrigation, and a consideration of expanding recycled water systems. **Dennis Baker** inquired about the effects of diversion projects on recycled water systems.

(c) Santa Ana Delhi Restoration Project

Ali Fayad and **Vinny Hoang** of Orange County Public Works (OCPW) presented an update on the Santa Ana-Delhi project, and expressed their hopes to garner support for the project. Background information on the area was provided, along with detailed maps and pictures of the existing area. Ali Fayad provided history of the project, from the U.S. Army Corps of Engineers notice in 1991, to the completion of the Environmental Impact Report, to the project's current situation. Mr. Fayad and Mr. Hoang reviews the benefits of the project, noting the reduction of potential flooding, creating viable tidal marsh habitats, and minimizing long-term erosion of the channel banks and beds. **Dennis Baker** and **Diane Dixon** inquired about maintenance, water sources and dredging concerns. **Lou Denger** asked if there was any monitoring required for the project, and **Fred Gallucio** asked if OCPW was looking at un-cementing existing concrete sections upstream.

6. Old Business

(a) Bay and Ocean Bacteriological Test Results

A presentation on the monthly test results was led by **John Kappeler**, who indicated few local exceedances no new updates or concerns.

(b) Update on Current Projects

Nancy Gardner provided an update on the Newport Bay Conservancy's (NBC) stance on the water wheel project. In a letter by the NBC, they express their opposition against the currently proposed location. **Diane Dixon** asked that the item be put back on as a future agenda topic. **Tom Houston** asked why there were no refill stations on Balboa Island.

7. Committee Announcements or Matters which Members would like Placed on a Future Agenda for Discussion, Action or Report

Jack Skinner asked about the status of the Copper Total Maximum Daily Load (TMDL) issue.

8. Public Comments On Non-Agenda Items

An announcement was made on an upcoming Help Your Harbor event on May 27, 2017.

9. Set Next Meeting Date

The next meeting date was set for Thursday, December 1, 2016 at 3:00 pm in the Crystal Cove Conference Room, located at 100 Civic Center Drive, Newport Beach, CA 92660.

10. Adjournment

A motion to adjourn was made**.** The meeting was adjourned at 5:05 p.m.

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Chairwoman / Diane Dixon

INTRODUCTION

THE IMPORTANCE OF BEING SUSTAINABLE

Whether it is the scarcity of water, the ~~fragility~~ vulnerability of the power grid or the limited capacity of our roads and landfills, our systems are challenged. To ~~sustain our systems into the future~~make these systems sustainable for future use, we need to ~~make changes~~create a sustainable mindset towards ~~in the~~ way we use them. Some changes require little more than education and encouragement. Others require investment and long-term planning~~.~~, ~~but by c~~Committing to these actions, the City Council will insure the high quality of life we enjoy in Newport Beach, ~~protect~~ manage City finances by reducing the need for major capital expenditures, and carry on the vision of the early leaders who dredged the harbor, built the jetties to provide a safe harbor entrance, and ~~bought land outside the city to~~ invested in groundwater basins ~~insure~~ insuring alternative water sources. ~~Just as it leads in other fields~~As in other services and programs,, The City of Newport Beach can be~~come~~ a leader in sustainability.

A PLAN FOR NEWPORT BEACH

Newport Beach has long ~~been a~~history of ~~-~~leadership in water quality and has made major strides in water and energy conservation~~.~~, However, the City lacks ~~but we lack~~ an overall sustainability plan. ~~to make the city more sustainable. This means gaps and a lack of coordination among programs and departments.~~ A sustainability plan will provide an interdepartmental unified vision and roadmap for the city, its residents and businesses~~.~~, Implementing the sustainability plan will ensure Newport Beach ~~so that we~~ continues to be the "shining city on the bay."

THE FIRST STEP

The critical first step is ~~for the Council to~~ establishing the importance of sustainability in the city and the City Council's commitment towards environmental programs and projects. With sustainability a declared goal, all departments and all staff members will embrace the effort~~, ands.~~ ~~r~~Residents will ~~know~~ be confisent knowing their elected representatives are taking the lead in this important step.

ORGANIZATION OF THE PLAN

This plan has seven sections: Education, Building/Development, Waste Reduction, Transportation, Energy, Water Conservation/Quality, and Urban Outdoors. There are suggested goals for each area as well as suggested programs and procedures to help achieve those goals. Where the city already has relevant plans, these are incorporated by reference or brought forward for new attention. Pertinent General Plan policies are cited. Current City activities are listed in Attachment A.

ACCOUNTABILITY

~~It is important that accountability be built into the plan. This can be done by~~Task driven interdepartmental meetings are necessary to promote sustainable practices. These include:

- ~~Regular interdepartmental meetings to review progress and promote integration, efficiency and synergy, as is currently being done to~~The Drought Task Force address ~~the~~ water efficiencies from management, distribution, end use, and programs addressing drought conditions.
- Assignment of relevant programs to existing bodies such as the Harbor Commission; Parks, Beaches and Recreation Commission; Environmental Quality Affairs Committee; and the Water Quality/Coastal Tidelands Committee.

- Annual reports ~~so that everyone knows~~to inform allof orogress made. ~~how we are proceeding toward our goals.~~
- Allow for a forum to implement innovative projects and programs addressing sustainability, clean ocean water, energy and water efficiency.

1. EDUCATION

GOAL: Enhance the availability of information on sustainability and engage the community in sustainability efforts.

Public Outreach plays a vital role in effecting change. ~~There is a big educational component in sustainability, with n~~New information and opportunities emerg~~eing all the time~~frequently. Keeping the ~~. The more~~ residents and ~~busines~~business community alert to these opportunities allow for all to take action.~~ses know about sustainability, the easier it is for them to take the right steps.~~

BUILD THE CITY'S COMMUNICATION CAPACITY: Residents and businesses look to ~~T~~the City for ~~is the natural~~ information. ~~portal for residents and businesses~~ Whether it's for approvals through its permit process to social media engaging with the customer allows for sustainable action. ~~and because of the diversity of skills and knowledge represented in its workforce.~~

- **IMPROVE "GREEN" WEB PAGE ~~SITE~~ ACCESSIBILITY:** Newport Green on the City's website has a lot of information and links but needs redesign ~~to make it more~~a prominent place on the site menu. ~~accessible. Put the Newport Green logo on the home page. Identify and fill gaps in information.~~ Continued page maintenance ~~Continually refresh, augment and~~highlighting current and proposed projects ~~present the information to~~ will show the City's commitment to sustainability. ~~and to connecting with residents~~. ~~Continue to update the Green Building Guidelines and publicize all rebate programs and financial incentives.~~
- ~~**MAKE THE**~~ **BUILDING/PLANNING DESK - AN INFORMATION SOURCE**: ~~Highlight~~ Present Newport Green on materials and signs and provide shelf space for pertinent brochures. Include relevant information on sustainability when ~~giving out~~issueing permits and other City forms.
- **CONTINUE OUTREACH PROGRAMS**: ~~Waterwise~~ Workshops and other presentations by knowledgeable City staff have been well received and should be continued and expanded.
- **PROVIDE UPDATES**: List energy and financial savings accomplished through City efforts.
- **UTILIZE THE NEW MEDIA**: Tap into the new ways people get information by inviting students at local schools to create programming, apps--and new audiences.

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SEEK OUT PARTNERS: Whether it is a grant application, a restoration program or a how-to seminar, working with others can amplify City education efforts.

- **WORK WITH UTILITIES**: Our local utilities have a number of programs, and the City should continue to partner with them and expand the partnerships where possible.
- **WORK WITH EDUCATIONAL INSTITUTIONS**: UCI can be a valuable resource for City efforts, especially in data collection, and local elementary and high schools provide opportunities to educate and motivate future generations.
- **COORDINATE WITH NONPROFITS**: Partnering with local environmental nonprofits can enhance grant opportunities, and such organizations can be a resource for volunteers. Also, these organizations can be utilized in City efforts to inform and engage the public.
- **EXPLORE PRIVATE SECTOR ADVANCES AND PARTNERSHIPS:** Many private companies are on the cutting edge of sustainability programs and processes, and the City should look for opportunities to benefit from their knowledge.

REWARD ACHIEVEMENT: Recognition motivates and educates.

- **SALUTE AWARDS AND PRIZES**: Support the efforts of businesses like Roger's Gardens and others who recognize achievement in sustainability by inviting winners for further recognition by the Council.

2. BUILDING/DEVELOPMENT

GOAL-- increase the use of green building techniques in new development and remodels throughout the city.

Whether it is an alteration to a home or a brand new development, incorporating new techniques makes for more efficient buildings and should be encouraged at every level.

MAKE IT EASY TO BUILD GREEN: The market is moving more and more toward energy-efficient, green housing, and the City should do as much as it can to facilitate this market.

- **REVIEW FEES:** In reviewing fees, consider not just city costs but what activities the City wants to encourage when setting the fees for items like solar permits or alternative fuel pumps.
- **REVIEW CODES AND PROVIDE MORE FLEXIBILITY**: If codes lag or mandate only one path, those who want to build green may have to seek variances, a process which takes staff time as well as causing delays for applicants. As an example, expanses of asphalt parking lots create heat islands, and the required 90% compaction creates sterile soil. A simple solution: provide the option of permeable paving and compaction of less than 90% where appropriate.
- **CREATE A FAST TRACK FOR GREEN BUILDING**: Creating two permitting paths encourages--but doesn't mandate--green building. Create a checklist of desired green features. If applicants can check off all the features, they get expedited permitting. *(NR 24.1 Incentives for Energy Conservation)*
- **ENCOURAGE STAFF MEMBERS TO BECOME LEED ACCREDITED OR THE EQUIVALENT:** The more expertise on staff, the more assistance can be provided not just to applicants but to other staff members.

Comment [WU1]: The City already adopted and enforces the "green" building, Plumbing. Energy and mechanical codes these include

ENERGY
Solar
EV charge Stations
Energy Storage
Smart Meters, Smart Panels (deflagration)

PLUMBING
Grey Water

BUILDING
Energy Efficient Windows
Solar reflective plywood for roofing
Insulation
Attic Fans

Mechanical
HV/AC Efficiencies
Pool Pumps

- **EXPAND STAFF TRAINING AND AWARENESS:** Provide sustainability education for all City departments and all levels within departments to increase better city coverage on these issues.
- **INCORPORATE SUSTAINABILITY GOALS**: Have departments set sustainability goals for their departments and have regular reports on performance.

TAKE A LEADERSHIP ROLE: Show the City is committed to sustainability with public buildings that can provide a healthier environment for workers.

- **LEED BUILDINGS:** Continue the policy that all City buildings must be LEED qualified or the equivalent where financially feasible.
- **RETROFIT**: Regular maintenance and repair of City buildings should incorporate sustainability practices, and there should be cost-benefit analyses of retrofitting older buildings to make them more energy efficient.
- **ENCOURAGE SUSTAINABLE NEIGHBORHOODS**: When reviewing development ~~proposals,~~proposals consider the surrounding neighborhood/area and encourage development that looks beyond the individual parcel and appropriately improves the public realm which may include pedestrian and bicycle access, landscaping, and other improvements that promote the area's sustainability. *(LU 5.6.1 Compatible Development, LU 5.6.4 Conformance with the Natural Environmental Setting LU 6.1.2 Siting of New Development, CE 5.1.3 Pedestrian Improvements in New Development Projects, CE 5.1.4 Linkages to Citywide Trail System and Neighborhoods)*
- **JOBS/HOUSING BALANCE**: To the degree possible, work towards a jobs/housing balance that reduces the need for long-distance commuting.
- **HEALTHY TREES**: Whether in parking lots or parkways, trees provide an aesthetic benefit as well as shade and habitat. Focus on trees that provide large canopies but also avoid root problems and are not heavy water users. To insure healthier trees, mandate BMPs for tree wells including deeper holes and better soil arrangements.
- **LOOK TO THE FUTURE:** Changing major systems once a house/building is completed can be disruptive, difficult and expensive, so it is more practical to provide for future choices.
- **FORWARD FIT**: Where financially feasible, promote best practices by encouraging all new development to provide solar-ready rooftops, gas pipe outlets for major appliances, and outlets for plug-in vehicles, so that if users choose, they can make energy upgrades easily.

Comment [WU2]: Per the Water Quality act Low impact development requires 80%/20% capture and infiltrate runoff with Biosswels and French driains

Comment [WU3]: Water efficiency - Landscape development of common areas require an aggregate landscape of 0.7 ETo for a Maximum Water Allowance (MWA) NBMC 14.17

3. WASTE REDUCTION

GOAL--move toward a zero-waste model.

Trash is expensive. The more we can reduce the amount of waste we produce, the better it is for our budget and also for the environment since landfills are a major source of methane. In looking at programs and policies, the City should always consider the Zero Waste mantra: Reuse, Recycle, Reduce.

Comment [WU4]: City should adopt a facility composing bin and encourage curbside composing program see City of San Clemente's program

Objective: **redirect 100% of the waste stream from within the city to the best and most appropriate use.**

IDENTIFY ALL WASTE STREAMS: To have a comprehensive program, we must know the amount each segment produces.

- **DATA ANALYSIS:** Analyze the amount produced through construction/demolition; households (mixed and recyclables)~~; businesses~~; businesses (malls, small and large shopping centers, restaurants, apartment buildings) to determine the best BMP to reduce/reuse/recycle.

REDUCE CONSTRUCTION WASTE: Building material makes up 22% of landfill material statewide.

- **SUPPORT DECONSTRUCTION OVER DEMOLITION**: Deconstruction provides for the reuse of many elements. Consider incentives such as fast-tracking for those who not only deconstruct but use the material on site.

PROVIDE FOR HAZARDOUS WASTE DISPOSAL: Because the hours and location of the sites for hazardous waste disposal are not always convenient, hazardous materials tend to ~~accumulate in~~accumulate in ~~garages which is~~garages which are hazardous in itself.

- **HAZARDOUS WASTE PICK UP**: Work with the City's residential trash hauler ~~to better~~to better communicate the methods available for haz/mat pickups.
- **DISCOURAGE SINGLE-USE MATERIALS:** Plastic bottles and single use bags are a major component of trash on beaches, in the harbor and in landfills.
- **WATER REFILL STATIONS**: Work with private sector/non-profit groups to replace existing drinking fountains with water refill stations throughout the city.
- **MULTI-USE BAGS**: Encourage residents and businesses to use/provide multi-use bags.

REDUCE OFFICE WASTE: Sustainable procurement and use practices save money and encourage green businesses.

- **PAPER USE**: Set a City reduction goal.
- **GO ELECTRONIC**: Within legal and practical boundaries, use electronic means for notices, etc., instead of paper whenever possible.
- **GOOD PACKAGING PRACTICES**: To the degree possible, make packaging a consideration when purchasing supplies.

REDUCE ORGANIC WASTE: Divert waste that can be reused from landfills.

- **COMPOST:** Look for opportunities to expand the City's compost program.
- **STUDY A GREEN WASTE PROGRAM**: Determine which gets a higher diversion of green waste--implementing a green waste program for residents or increasing the diversion requirements with city haulers, and implement the better choice, taking into consideration any additional cost.
- **SEPARATION OF MATERIALS**: Work with the residential trash hauler(s) to continue educating residents on the benefits of separating and recycling. Be sure that separated trash is handled appropriately. Post the information on the city's website.
- **CONSIDER BIO-COMPOSTING SYSTEMS**: Such systems take organic waste including food and compost it to produce a biogas that can be used as CNG fuel or to produce electricity. Sites can be as small as 3,000 sq. ft. Form a task force to explore the feasibility of such a system for the city.

Comment [WU5]: City has 10 water bottle stations with plans for increasing stations.

Comment [WU6]: How is this done? No controll over vendor packaging

Comment [WU7]: This is accomplished through designated trash cans proscribed to each residence via CR&R

- **FOOD WASTE PROGRAMS**: Encourage local restaurants to participate in food waste programs ~~from groups~~from groups like Surfrider Foundation.

PROTECT THE HARBOR AND BEACHES: Beaches, parks and other sites are often overwhelmed by the amount of trash produced by their visitors.

- **ADD CANS AND ROUTES**: Working with trash haulers, identify areas that need more trash cans and/or pickups to eliminate escaped trash.

4. TRANSPORTATION

GOAL-- ~~a transportation~~a transportation system with efficient traffic flow, convenient alternatives to the automobile and ~~which~~ is friendly to pedestrians and bicycles.

Probably the most common complaint from residents is about traffic. Whether it is a daily commute along Coast Highway or trying to take the family to the beach in the summer, congested roads mean longer trips, increased emissions, ~~more~~ frustration for drivers and demand for new lanes/streets. By promoting alternative means of transportation, the city can reduce the number of cars on the road, the amount of emissions produced, capital expenses, and improve the quality of life for its residents.

ENCOURAGE ALTERNATIVE TRANSPORTATION MODES: The use ~~of alternative~~of alternative transportation can relieve congestion on the roads and take pressure off the busiest parking lots. *(CE1.1.1 Comprehensive Transportation System, CE 6.2.1 Alternative Transportation Modes)*

- **BICYCLE MASTER PLAN**: The adopted Bicycle Master Plan lays out comprehensive steps for improving city streets and roads for bicycles and pedestrians. It is critical that the plan's recommendations be enacted.
- **BIKE SHARING**: This provides an easy way to encourage the use of bikes, particularly by visitors and beachgoers, so it would serve the city well to bring in a bike-share program from a private vendor.
- **BIKE VALET**: Many residents and visitors would bicycle to events within the city if they were sure of a place to leave their bikes. As part of the Special Event permit, encourage bike valet programs at events held in the city.
- **INCREASE WALKABILITY**: Identify areas with incomplete sidewalk connections and improve connectivity. *(CE 5.1.2 Pedestrian Connectivity NR 6.1 Walkable Neighborhoods)*
- **PREFERRED PARKING**: Provide preferred parking in city lots for car pools, alternatively-fueled autos, golf carts.
- **MAKE BUS TRAVEL MORE ATTRACTIVE**: Work with OCTA to improve the comfort and utility of bus stops. Work with local businesses to provide more links from the Newport Center hub to places of employment. (*CE 1.2.4 Public Transit, CE 4.1.1 Public Transit Efficiency, CE 4.1.6 Transit Support Facilities)*
- **EXPAND EXISTING SYSTEMS**: Work with existing businesses and institutions that already provide transportation such as UCI and the "bar" cars on the Peninsula to develop additional routes and hours.

Comment [WU8]: Review City of Long Beach bicycle share program

- **GOLF CART ROUTES:** Develop more routes for golf carts, especially ways to get to major attractions like the beach and shopping centers.
- **ALTERNATIVE FUELS**: Continue to support and expand alternative fueling stations--CNG, electric, hydrogen. NR 6.8 Accessible Alternative Fuel Infrastructure)
- **SHUTTLES**: If a funding source can be identified, develop a program for free electric shuttles to and around areas like the Peninsula, CdM and Fashion Island. Start with a summer program, and consider partnering with schools for offsite parking locations. *(CE 1.2.2 Shuttle Service, CE 4.1.2 Seasonal Public Transit)*
- **SCHOOL TRAFFIC**: Work with the school district to encourage carpooling for those students who drive. Identify and improve safety issues to encourage more students to bike and walk to school. *(CE 4.1.7 School Transit, CE 5.1.11 School Access)*

IMPROVE TRAFFIC EFFICIENCY: More efficient streets mean better traffic flow and fewer emissions.

- **TRAFFIC LIGHT SYNCHRONIZATION**: Continue to improve the synchronization of traffic signals on all major thoroughfares. *(CE 2.2.3 Traffic Control, CE 6.1.1 Traffic Signals, CE 6.1.2 Intelligent Transportation Systems, NB 6.6 Traffic Signal Synchronization)*
- **SIGNAGE**: Continue to review signs, whether directional or street identification, to be sure they are easy to read and understand. *(CE 1.2.1 Wayfinding, CE 7.2.2 Parking Signage, R 9.3 Sign Program)*
- **NEIGHBORING CITIES**: Coordinate with abutting cities to maximize alternative transportation opportunities and to improve traffic efficiency. *(CE 3.1.2 Integration of Transportation Systems with Adjoining Communities and the Region, CE 6.1.3 Coordination with Adjacent Jurisdictions NR 6.5 Local Transit Agency Collaboration)*

Comment [WU9]: Long Beach, Santa Monica

HELP BUSINESS: The more residents shop within the city, the fewer miles they drive.

- **BUY LOCAL CAMPAIGN:** Work with the Newport Beach and Corona del Mar Chambers on a Buy Local campaign to support local businesses and eliminate miles driven.

SHORTEN COMMUTES: The closer people are to work, the less they have to drive.

- **SUPPORT WORKPLACE HOUSING**: Work with major employers like Hoag and create incentives for workplace housing.

IMPROVE PARKING AND ROAD INFORMATION: Neighborhoods near the beach suffer from cars circling endlessly, trying to find parking.

- **BEACH LOT SIGNAGE**: Have strategically-placed signs well before the destination announcing when beach lots are full and suggesting alternatives.
- **HIGHLIGHT ALTERNATIVE ROUTES**: Take some of the pressure off local roads, particularly Coast Highway, by pointing out alternatives with signs. Commission a study ~~of the~~of ~~proposed~~the proposed bypass option to ~~use Newport~~use Newport Coast Drive as an alternative to Coast Highway through Corona del Mar.

DECREASE EMISSIONS: Big trucks can be a major source of emissions.

- **REPLACEMENT**: Continue to replace City vehicles fueled by gasoline. Set a goal for the City fleet to be completely alternative fuels by the earliest practical date, taking into account the financial considerations. (*NR 6.7 City Fleet Vehicles)*

- **CONSOLIDATE WASTE PICKUP**: Improve the efficiency of waste pickup and reduce the number of large trucks on streets and in alleys by working with the franchised haulers.

5. ENERGY

GOAL--make the city as energy-efficient as possible.

Energy providers have struggled to keep up with population growth, and resulting power outages are not just inconvenient--they can be disastrous. Reducing usage will help protect the grid while utilities work to augment their capacity. To this end, the City has an excellent Energy Action Plan (EAP) that should continue to be followed diligently.

Objective--review, update and adopt the City's Energy Action Plan. *(NR 24)*

CONSERVE ENERGY: One of the most inexpensive ways to reduce energy usage is through conservation.

- **PARTNER WITH UTILITIES**: Our local utilities have a number of programs to help residents and businesses reduce energy usage, and the City should help promote these programs.
- **PROMOTE EFFICIENCY**: Encourage where feasible the most energy-conserving insulation, windows, etc. in new building and remodels. *(NR 24.2 Energy Efficient Design Features)*

PRODUCE ENERGY: Energy savings translate into dollar savings while relieving stress on the grid.

- **SOLAR TREES**: In parking lots, solar trees provide both welcome shade for cars and energy for other uses. Develop a plan to install solar trees in City parking lots where it is aesthetically compatible and financially feasible. Provide incentives for solar trees in private lots.
- **SOLAR PANELS, BUILDINGS**: Solar panels can provide a significant portion of a building's energy requirements. Develop a plan to phase in solar power for City buildings where financially feasible.
- **SOLAR POWER, HARBOR**: Look for sites in the harbor to use solar panels to provide power.
- **OTHER SOLAR OPPORTUNITIES**: Work with agencies and businesses to encourage solar-powered pay stations, signage and bus stop accoutrements.
- **BIOCOMPOSTING**: (as discussed in Waste) Create a site for bio-composting to convert organic waste to gas and electricity.

MONITOR ENERGY: The EAP has a number of recommendations for monitoring energy use.

- **ENERGY AUDITS**: Conduct regular energy audits of City buildings to insure efficiency. Report findings on the City website.
- **ENERGY STUDIES**: Use the Enterprise Energy Management Information System and the EPA Portfolio Manager. to monitor City Hall and other City LEED (or the equivalent) buildings to see how they perform vs. how they are supposed to perform to provide information for better buildings in the future.

IMPROVE INFORMATION ACCESSIBILITY: Older style meters provide little information to users and require drive-to reading.

- **MODERN METERS**: Work with utility companies to install state-of-the art meters so that residents have timely information on usage and on-site meter reading is eliminated.
- **REPORT CARDS**: Have annual updates on usage so that residents know how the city is doing on energy savings. Post on the City website.

6. WATER

6a. WATER CONSERVATION

GOAL--make the city as self-sufficient in its water supply as possible while increasing conservation efforts.

The city is fortunate not to have to depend on a single source for its water, and it should continue to seek additional sources. At the same time, conservation efforts should be expanded.

Objective--meet and exceed State-mandated requirements for conservation.

CAPTURE WATER: Runoff is wasted water that also impacts water quality.

- **CURB CUTS**: Where practical and financially feasible, mandate that streets and parking lots be designed to direct runoff to landscaped areas.
- **STORAGE TANKS**: Where practical and financially feasible, infiltrate or capture and reuse on landscape via storage tanks on site complying with low impact development.
- **RECYCLE WATER:** The more recycled water replaces potable water for landscape, the more potable water is available.
- **INCREASE RECYCLED WATER SUPPLY**: The City has identified all purple pipe (recycled water) outlets within and immediately adjacent to the city. Determine where extensions of the pipes would create the most benefit (parks, golf courses). Seek private partners, and develop an implementation program to extend the pipes to these areas as part of the Facilities Finance Plan and budget. Permanently tie into CdM High School playing field irrigation to use recycled water on a permanent basis. *(NR 2.1 Recycled Water Use)*
- **GRAY WATER**: Simplify the requirements for gray water system installation as much as possible while remaining consistent with state standards.
- **GROUNDWATER RECHARGE**: Look for new sites for recharge. Work with IRWD and Newport Bay Conservancy to determine the feasibility of a site below San Joaquin Marsh. Install infiltration galleries at the outfall of Buck Gully. *(NR 2.2 Advanced Water Treatment Processes)*

IMPROVE LANDSCAPES: Plantings suitable to our climate save water and can also contribute to water quality by reducing runoff.

- **DEMONSTRATION GARDENS**: Support demonstration gardens, both by the City and by other groups, that showcase plants that use less water. Have photos on the City's web site and also in the Building/Planning area.

- **TURF REMOVAL**: Look at playing fields and other areas in the city for the replacement of grass with artificial turf where practical and financially feasible. Provide incentives for turf removal by residents and businesses.
- **SMART IRRIGATION SYSTEMS**: The City should continue its successful program to provide incentives for residents to change to smart systems, particularly in areas adjacent to sensitive habitat.

STRENGTHEN THE MESSAGE: Utilize a variety of ways to get the conservation message out.

- **REACH RENTERS**: Work with landlords to develop reliable and regular ways to communicate with renters about conservation.
- **IMPLEMENT TIERED RATES**: These can work as both encouragement to save and discouragement to waste. With the guidance of the City Attorney and in conformity with state law, implement a tiered rate plan that is tailored to individual requirements as much as possible. *(NR 1.3 Tiered Water Rates)*

6b. WATER QUALITY

GOAL--have a healthy ocean, bay and harbor as evidenced by high water quality.

The harbor and ocean are major financial engines for the city which has enacted many programs over the years to protect water quality. These efforts must be continued and expanded where possible to maintain the high reputation the city enjoys.

Objective--have all beaches receive no lower than a B grade from Heal the Bay and have zero postings in the harbor and elsewhere.

REDUCE RUNOFF: Water coming from streets and storm drains is the major conveyor of pollutants to the ocean and bay.

- **GREEN STREETS**: Require street design to minimize runoff with curb cuts and bio swales wherever possible. Where possible, retrofit existing streets to utilize parkways and medians to capture runoff. *(HB 8.2 Water Pollution Prevention, HB 8.15 Street Drainage Systems, NR 3.2 Water Pollution Prevention, NR 3.15 Street Drainage Systems)*
- **NATURAL TREATMENT SYSTEMS**: Look for opportunities to create systems, particularly where water quality problems are occurring downstream. *(HB 8.13 Natural Wetlands, NR 3.13 Natural Wetlands)*
- **PERMEABLE PAVEMENT**: Look for opportunities such as the repaving of alleys and parking lots to use a permeable surface.

REDUCE TRASH: Trash is not only unsightly but impacts water quality.

- **DEBRIS BOOMS**: Identify additional areas for debris booms and install them in order to capture trash before it reaches the bay and ocean. Have a regular maintenance program not just for the trash removal but for site access.
- **UPSTREAM PARTNERS**: The Newport Bay Watershed Executive Committee is a group of cities, the county and private entities that works together financially and otherwise to solve problems affecting the bay. It is critical that the City play a major role in both the

Executive and Management (staff) committees to insure that all those who contribute to the problem continue to be part of the solution.

- **CDS UNITS AND MARINA TRASH SKIMMERS**: Continue to expand both programs using OCTA grants to fund the program.
- **CATCH BASINS**: Catch basins can be a major source of pollutants, particularly when they are never cleaned or cleaned irregularly. The City already cleans a number of basins annually for private entities and should extend this program so that all catch basins are cleaned annually.
- **SANTA ANA DELHI TRASH REMOVAL PROJECT**: Support this project and work with partners to look for maintenance funding opportunities.

UTILIZE DIVERSIONS: Although not usually a first choice, diversion can be a solution to difficult water quality problems where treatment methods have failed. It can also be a source of water for groundwater replenishment.

- **IDENTIFY HOTSPOTS**: Identify water quality hotspots and determine where it is feasible to divert the source of pollution.
- **UTILIZE RUNOFF**: Many golf courses and other entities use recycled water. Explore the possibility of having them accept diverted runoff to dilute the higher salt content of recycled water.

ENCOURAGE CLEAN BOATING: An important part of our marine community, boats are also a source of pollution from things like hull cleaning and older, inefficient engines.

- **PROMOTE BETTER METHODS AND PRODUCTS**: Task the Harbor Commission to develop proposals to lessen the impact of boats on air and water quality.

SUPPORT SCIENCE : Science can provide new methods of dealing with water quality problems. It can also provide the basis for challenging water quality standards that appear arbitrary or ineffective.

- **UCI OCEANS:** The City should take advantage of UCI Oceans which is committed to establishing new partnerships.
- **KERKHOFF MARINE LAB:** The City should promote and help fund this unique facility, both in its location and the fact that it has an ocean-intake pipe, something that would be virtually impossible to get permitted today. UCI is committed to the revitalization of the lab, both for marine science studies and as a resource for marine education for youth.
- **GUTTER BUDDIES**: The City should encourage the State Water Board to accept a natural exclusion clause for bacterial TMDLs, as proposed in the biofilm study by residents (Dr. and Mrs. Jack Skinner) and staff (John Kappeler). Such an exclusion would mean lower testing costs and fewer beach closures while not negatively impacting swimmers' health.

7. URBAN OUTDOORS

GOAL -- protect and enhance recreational and natural open space.

From the Upper Bay to the beaches, Sunset Ridge Park to Buck Gully, the city's open spaces provide recreation, solace and habitat within an increasingly urban environment. Protecting these resources helps maintain the city's life style as well as property values and tourism. (LU 1.3 Natural Resources, NR 13.1 Wetland Protection)

CLEAN, HEALTHY BEACHES AND PARKS: Our parks and beaches are major attractions for both residents and visitors and must be maintained at the highest level.

- **PARTNERSHIPS:** Work with community groups on clean up and beautification programs such as adopt-a-beach and adopt-a-park.
- **FEWER PESTICIDES:** Continue to reduce the use of and find alternatives to chemical pesticides and herbicides in city parks and open space. *(HB 8.1 Chemical Uses Impacting Water Quality, NR 3.1 Chemical Uses Impacting Water Quality)*
- **GREEN LINKAGE**: Develop a green linkage plan that connects the city's parks and beaches with green corridors and pedestrian/bike ways.

URBAN FOREST: Newport Beach is a TreeCity/USA recipient. Our trees are a vital part of our neighborhoods.

- **URBAN FOREST MASTER PLAN**: Finalize a master plan for the replacement of trees that insures a good percentage of mature trees in every area of the city at all times. Set a specific goal for the number of replacement and additive trees each year
- **PARKWAY TREES**: Provide longer irrigation periods by the City to insure the survival of new trees. Provide more information to homeowners on the care of trees in their parkways.
- **ADDITIONAL SELECTION CRITERIA**: In addition to site suitability, in selecting trees include criteria for species that support birds, bees and other important fauna.
- **USE EXISTING PLANS:** Make good use of plans already prepared by staff and community.
- **HAMP AND HARBOR ELEMENT**: Task the Harbor Commission with oversight of the Harbor Area Management Plan and Harbor Element of the General Plan, and have the Commission present an annual report on how well the City is implementing them.
- **SANTA ANA RIVER TRAIL VISION**: Task the Parks, Beaches and Recreation Commission with oversight of this plan, and have the Commission present an annual report on progress.

CONTINUE TO PROVIDE OPEN SPACE AREAS: While most of the city is built out, there are still areas that have been ignored and with care will provide new recreational resources and habitat.

- **ORANGE COAST RIVER PARK:** Continue to support the efforts of Orange Coast River Park, Inc. to facilitate more coordination among landowners in improving this area.
- **BIG CANYON NATURE PARK/JOHN WAYNE GULCH/NEWPORT CANYON**: Follow the plans created by staff and look for new opportunities to move efforts forward. *(NR 16.2 Big Canyon Creek Restoration Project)*

PROTECT RESOURCES: The growth of population and accompanying development have impacted our most sensitive areas.

- **TIDEPOOLS:** Work with Orange County Marine Protected Area Council to expand programs protecting the sensitive rocky areas from Big Corona to Crystal Cove.

- **UPPER BAY**: Work with other landowners and the Newport Bay Conservancy to implement recreation and restoration plans. *(HB 7.2, HB 7.3, NR 16.3, NR 16.4 Management of UNBER; HB 7.4, NR 16.5 Public Uses within UNBER; HB7.5, NR 16.6 Water Related Education and Research within UNBER; NR 16.1 Funding Support for UNBER)*
- **WESTERN SNOWY PLOVER**: Continue to work with both residents and the California Department of Fish and Wildlife to protect breeding areas for the plover.
- **SEA LEVEL RISE:** While there has been a lot of discussion of the bay, particularly Balboa Island, the ocean-facing areas have been largely ignored.

  DEVELOP AN OCEAN PLAN: Develop a plan to deal with sea level rise along the ocean front that avoids armoring and supports natural treatments including deep beaches and dunes. The plan should include a schematic for the use of dredging spoils, particularly from the Santa Ana River. *(NR 5.1 Dredging Projects)*

Recycled Water Use

City of Newport Beach

Water Quality Coastal Tidelands Committee

11/3/2016

Recycled Water

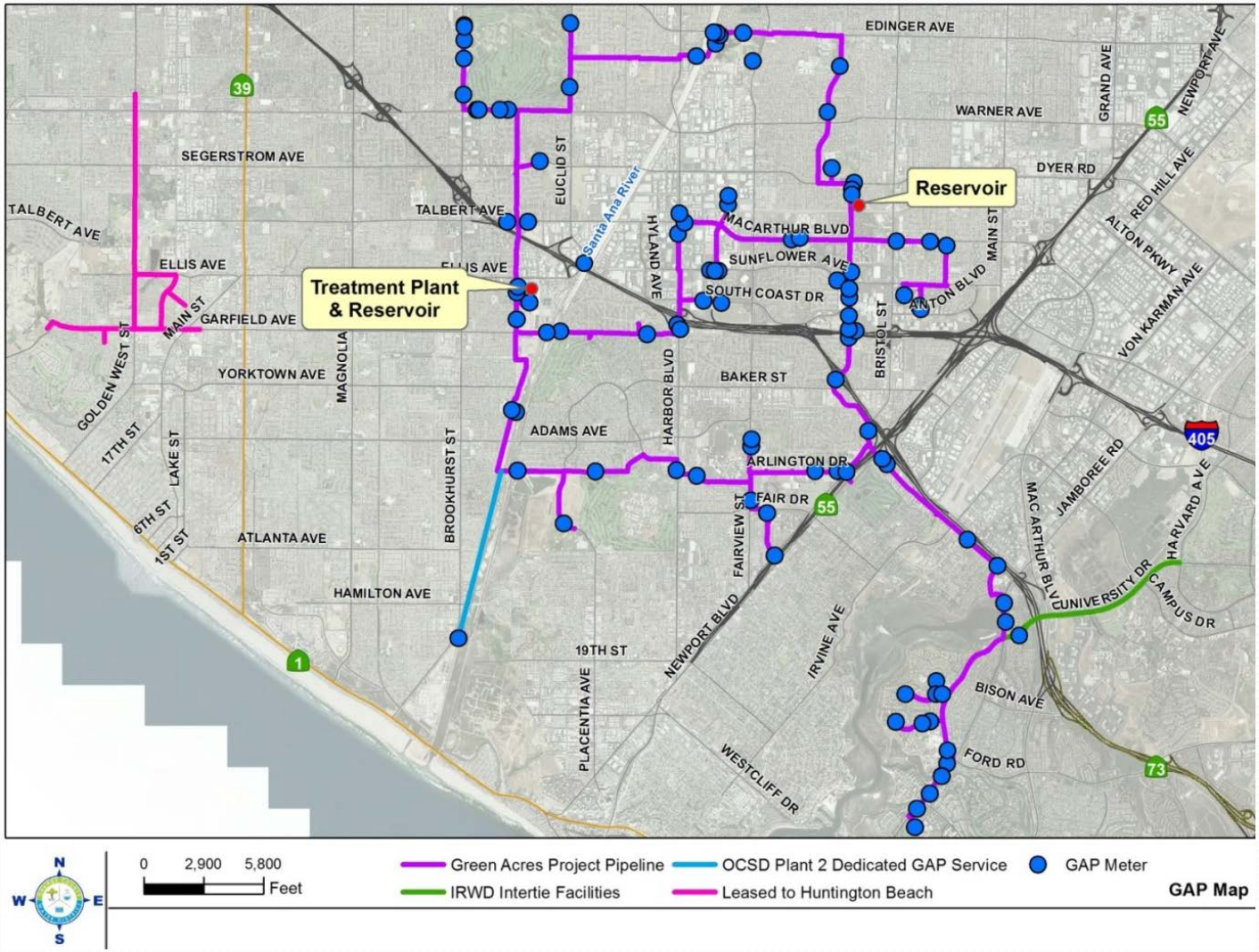
Wikipedia

Reclaimed water or **recycled water**, is former wastewater (sewage) that is treated to remove solids and impurities, and used in sustainable landscaping irrigation, to recharge groundwater aquifers, to meet commercial and industrial **water** needs, and for drinking.

California Code of Regulations

"Reclaimed Water" is a wastewater which as a result of treatment is suitable for uses other than potable use.

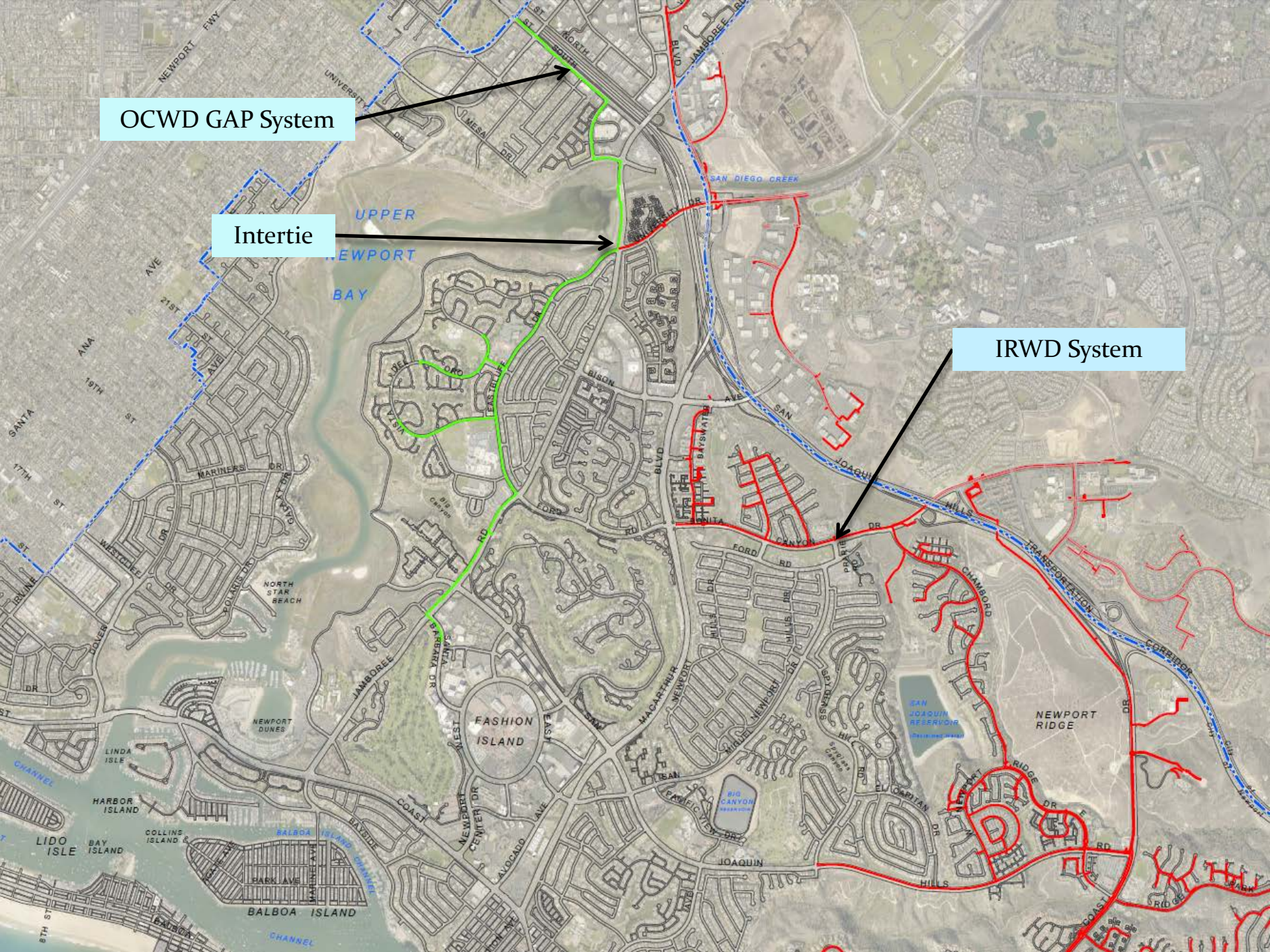
OCWD Green Acres Project (GAP)



Agencies Using GAP

GAP Participation In FY 2014-15 (4,320 AF)			
Producer / Retailer	**Number of Active Meters**	**Percent of Total**	**Major End-Users**
Fountain Valley	17	32% (1,361 AF)	Mile Square Park, Mile Square Golf, F.V. Recreation Center, Caltrans, Green Valley Golf, Baker Golf, Santa Ana River Bike Trails, Residential HOA
Mesa Water	42	26% (1,104 AF)	O.C. Performing Arts Center, C.M. Country Club, IKEA, Mt. Olive Cemetery, City Parks, Caltrans, Orange Coast College, Town Center, Plaza Tower, South Coast Plaza, Residential HOA
OCSD	3	23% (1,011 AF)	Wastewater Treatment Plants #1 & #2, Irrigation
Newport Beach	17	11% (492 AF)	Big Canyon Country Club, Newport Beach Country Club, NMUSD Schools, City Parks & Medians, Our Lady Queen of Angels
Santa Ana	25	8% (347 AF)	City Parks and Bike Trails, SAUSD Schools, Fabrica Carpet, Kaiser Medical Office, Chick-fil-A, Santa Ana River Bike Trails
OCWD	3	0.1% (5 AF)	Landscape Irrigation & Toilet Flushing

Note: Irvine Ranch Water District (IRWD) produces recycled water. They provide free water to GAP in the wet months and supplement their supply with import water from Metropolitan Water District in dry months.


OCWD GAP System
Intertie
IRWD System
UPPER
BAY
SAN DIEGO CREEK
FASHION ISLAND
NEWPORT RIDGE
NEWPORT DUNES
NORTH STAR BEACH
HARBOR ISLAND
LIDO ISLE
BAY ISLAND
BALBOA ISLAND
SAN JOAQUIN RESERVOIR
BIG CANYON RESERVOIR
MARINERS DR
JAMBOREE BLVD
MACARTHUR BLVD
NEWPORT CENTER DR
JOAQUIN HILLS
TRANSPORTATION CORRIDOR
FORD RD
BISON AVE
CHAMBORD
BALBOA ISLAND CHANNEL

Existing Connections

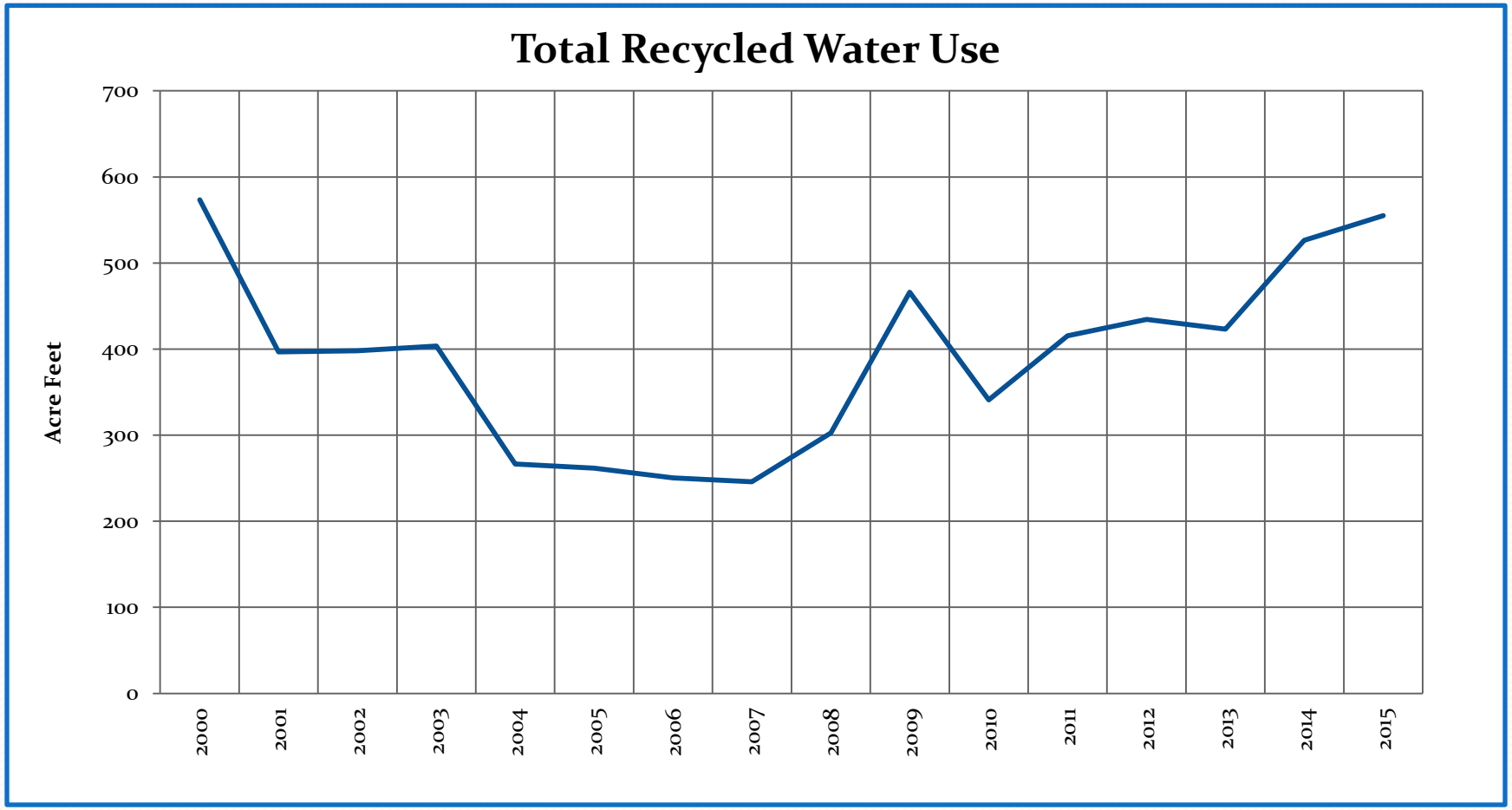
- Center Medians
  - Jamboree/Bayview
  - Jamboree/University
  - Jamboree/Santa Barbara
  - Jamboree/San Joaquin Hills
  - Visa Del Sol
  - Bristol/Birch
  - Bristol/Bayview
- Parks
  - Eastbluff Park
  - Bonita Creek Park
- Golf Courses
  - Big Canyon Country Club
  - Newport Beach Country Club
- Schools
  - Eastbluff School
  - Our Lady Queen of Angels
  - CdM High School
- Shopping Center
  - Eastbluff Shopping Center

Pump Stations

Big Canyon Country Club

Newport Beach Country Club

Newport Beach Use



Future of GAP?

OCWD has asked the following questions:

1. Should the District continue operating GAP?
2. How should the GAP system be coordinated with the Ground Water Replenishment System (GWRS)?
3. Should the District allow additional users to connect to the GAP system?
4. What should the OCWD selling price of GAP water be?

Cost

	FY 2014-15	$ per AF
Total GAP AF Served	4,320	
Chemicals	$ 102,781	$ 24
Electricity	$ 441,339	$ 102
Labor	$ 570,395	$ 132
Testing & Maintenance	$ 92,987	$ 22
Deep Well Supplement Value	$ 65,139	$ 15
R&R Contribution	$ 875,400	$ 203
O&M Sub-Total	$ 2,148,041	**$ 497**
COP (Payoff in 2043)	$ 690,000	$ 160
State Loan (Payoff in Dec 2017)	$ 290,331	$ 67
Total	$ 3,128,372	**$ 724**
LRP Subsidy (Expires October 2016)	($ 700,000)	($ 162)
Total (O&M + Sunk - Subsidy)	$ 2,428,372	**$ 562**

Current FY 2016-17 GAP sales rate: $478 per AF

Newport Beach HCF charge is $0.87 for Recycled Water and $3.08 for Drinking Water

* R&R = Repair and Replacement
* COP = Certificate of Participation
* LRP = Local Resource Program

Sales Price

- OCWD Staff recommends charging Retailers the actual cost incurred for production and distribution of GAP water
  - Same approach as Producers directly taking GWRS Water
  - Follows Propositions 26 and 218 principles
- Discontinue using the Replenishment Assessment to offset GAP expenses
- District would need to re-negotiate Retailer agreements (Newport Beach, Fountain Valley, Santa Ana, Mesa Water, Huntington Beach?)
- Goal to implement new rates for FY 2017-18 based on actual costs in FY 2015-16.

OCWD Board Action

RESOLUTION NO. 16-09-126
AUTHORIZING NEGOTIATION OF GAP SALES AND DISTRIBUTION AGREEMENTS

RESOLVED, that the General Manager is authorized to negotiate new Green Acres Project (GAP) Sales and Distribution Agreements with five water retail agencies currently participating in the GAP program: City of Fountain Valley, Mesa Water District, City of Newport Beach, City of Santa Ana, and City of Huntington Beach, and to return such agreements to the Board for final approval.

RESOLVED, FURTHER, that the new requests for inclusion in the GAP Program are authorized as follows:

- The Irvine Company: Eastbluff Village Center,
- The Irvine Company: San Joaquin Apartments,
- Canyon Mesa HOA
- Versailles on the Lake Apartments
- South Coast Plaza RW Expansion (Segerstrom)
- Mesa Verde Shopping Center (Segerstrom)
- Azulon at Mesa Verde Apartments (Segerstrom)
- The Irvine Company: The Enclave Apartments
- Corona Del Mar High School
- City of Huntington Beach (various locations)

RESOLVED, FURTHER, that all future requests to connect to GAP will be considered on a case-by-case basis until it is demonstrated that additional Orange County Sanitation District source flows exceed flows necessary for the GWRS Final Expansion project.

New Requests

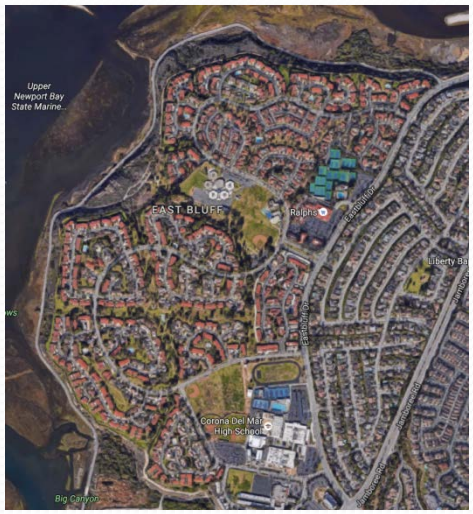
Property / Owner	Retailer	Status	Estimated Demand (AFY)
The Irvine Company: Eastbluff Village Center	Newport Beach	In Construction	2
The Irvine Company: San Joaquin Apartments	Newport Beach	In Construction	20
Canyon Mesa HOA	Newport Beach	In Design	18
Versailles on the Lake Apartments	Santa Ana	In Design	10
South Coast Plaza RW Expansion (Segerstrom)	Mesa Water	In Design	100
Azulon at Mesa Verde Apartments (Segerstrom)	Mesa Water	In Design	20
The Irvine Company: The Enclave Apartments	Mesa Water	In Design	30
Mesa Verde Shopping Center (Segerstrom)	Mesa Water	In Design	15
Corona Del Mar High School	Newport Beach	In Design	28
The Irvine Company: Fashion Island	Newport Beach	Concept	350
Costa Mesa High School	Mesa Water	Concept	32
Hyatt Regency	Newport Beach	Concept	16
Costa Mesa Fairview Park	Mesa Water	Concept	15
Caltrans RW Expansion: 405 North of Talbert	Fountain Valley	Concept	8
Orange County Museum of Arts	Newport Beach	Concept	2
Golden West College	Huntington Beach	Concept	45
OC Airport, Coastal Comm. Fellow, BEHR Paint, Glasir Design, TIC Baypointe		Concept	-

243 afy
Allow

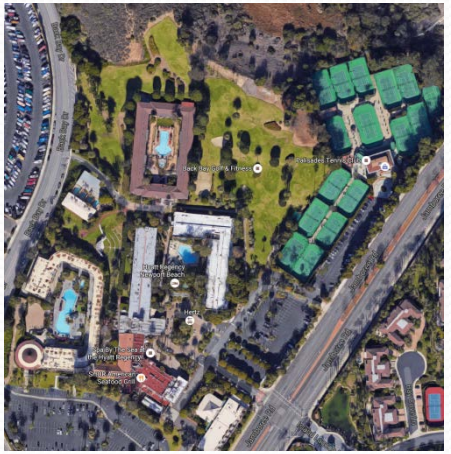
Deny
468+ afy

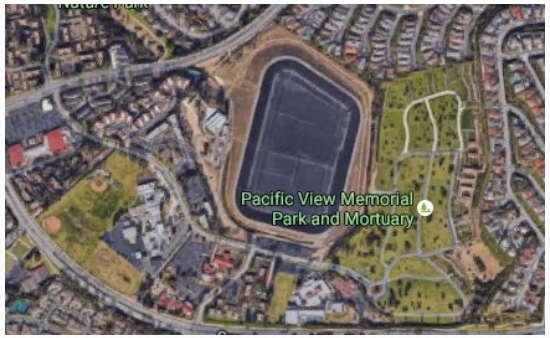
Could Newport Beach Add More?

- Hyatt Regency Jamboree
- Bluffs HOA
- East Bluff HOA
- Center Medians
  - Jamboree
  - San Joaquin Hills
- Fashion Island
- Pacific View Cemetery



Bluffs / East Bluff


Hyatt Regency



Pacific View Cemetery

Recycled Expansion Challenges

- Regional issues
  - Insufficient supply of wastewater
  - Supporting GWRS or GAP?
  - IRWD lawsuit regarding counting recycled as demand
  - State Water Board encourages use, but does not consider a conservation measure
- Local issues
  - OCWD may raise the cost of recycled
  - If recycled becomes available, there is limited pipeline
  - Who pays for new infrastructure? City or customer?
  - Water Quality, Cross Connections, Runoff

Questions?

George Murdoch, Municipal Operations Director
gmurdoch@newportbeachca.gov
(949) 718-3401

OC Public Works
Integrity, Accountability, Service, Trust

Santa Ana - Delhi Channel (F01)
Mitigation, Rehabilitation, and Coastal Access

INTRODUCTIONS

Orange County Flood Control District (OCFCD)

(Orange County Flood Control Act of 1927)

- To provide control of flood and storm waters of the District
- To conserve those waters for beneficial and useful purposes

OC PUBLIC WORKS

- OC INFRASTRUCTURE PROGRAMS
  - TRANSPORTATION & INFRASTRUCTURE DESIGN
    - VINNY HOANG, P.E. - ENGINEER
    - ALI FAYAD, P.E. - Sr. ENGINEER

OVERVIEW

- SANTA ANA-DELHI BACKGROUND/HISTORY
- PROJECT GOALS
- PROPOSED CONCEPT
- BENEFITS
- CEQA & PERMITS
- PROJECT COST AND SCHEDULE

PROJECT LOCATION

Project Site

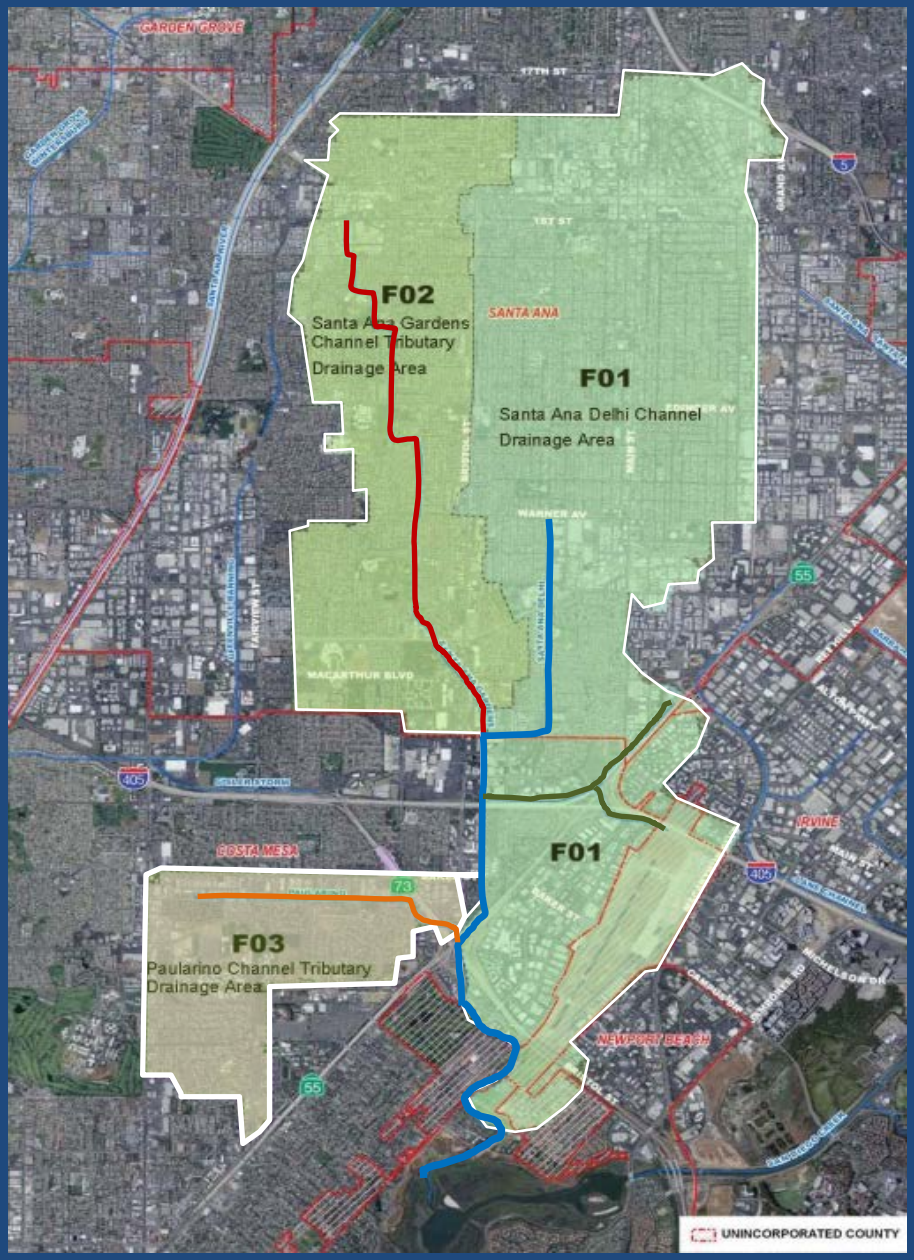
Quick Facts:

SANTA ANA-DELHI SYSTEM

- 11 miles long (draining 11,000± acres)
- Highly urbanized (~98% developed)

- Santa Ana-Delhi (F01),
- Santa Ana Gardens (F02),
- Paularino (F03) & Airport (F01S01)

Santa Ana-Delhi Watershed



Existing (upper segment)

View Looking Downstream

Existing (lower segment)

View Looking Upstream


END
Looking
Downstream

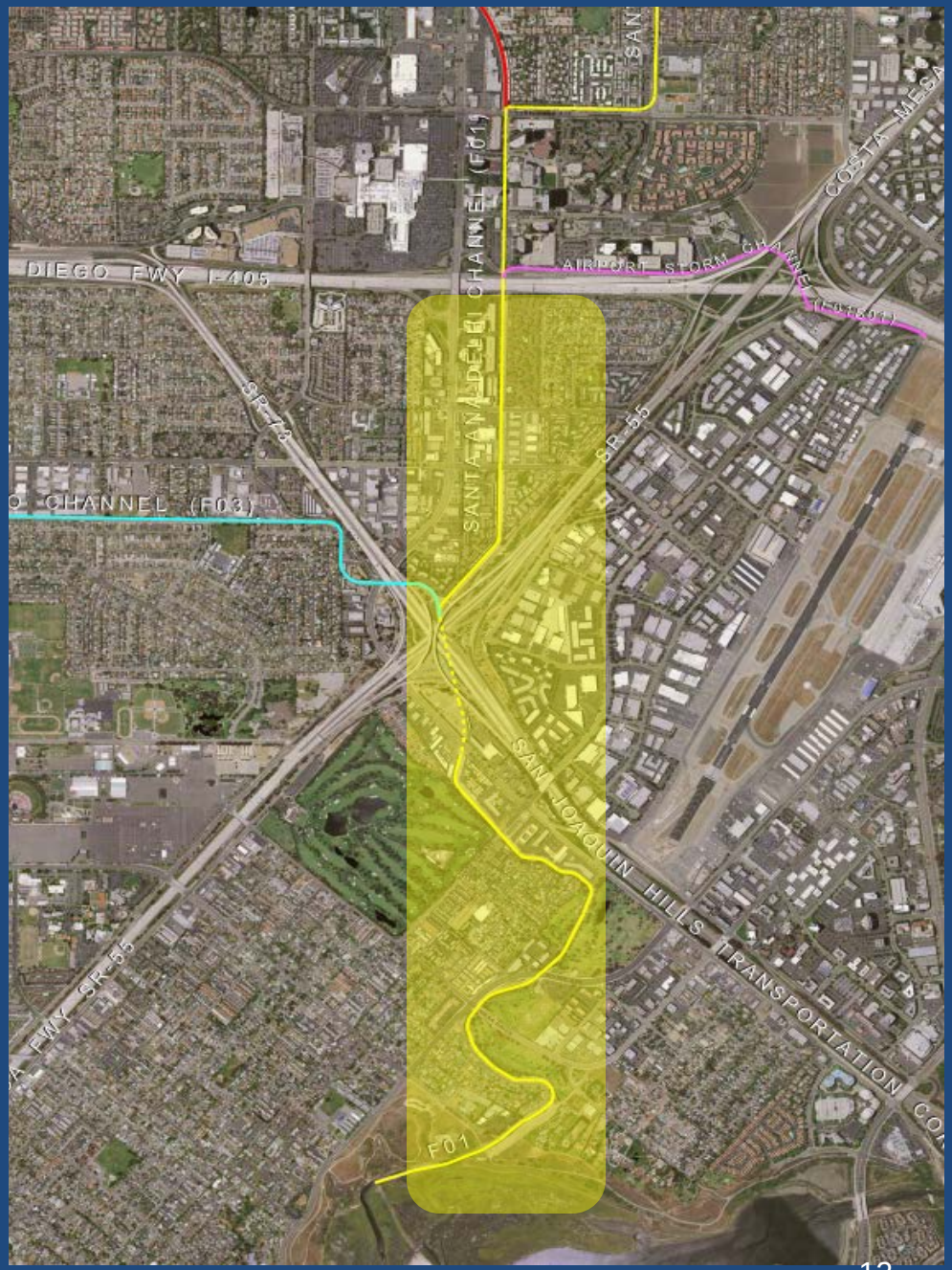
Bayview Bridge

BACKGROUND/HISTORY

SANTA ANA-DELHI (F01)

History:

- South Coast Plaza owners (early 80's)
- An engineering study was prepared
- 100- year flood protection level
- USACE considered it "piecemealing"



U.S. Army Corps of Engineers (USACE)

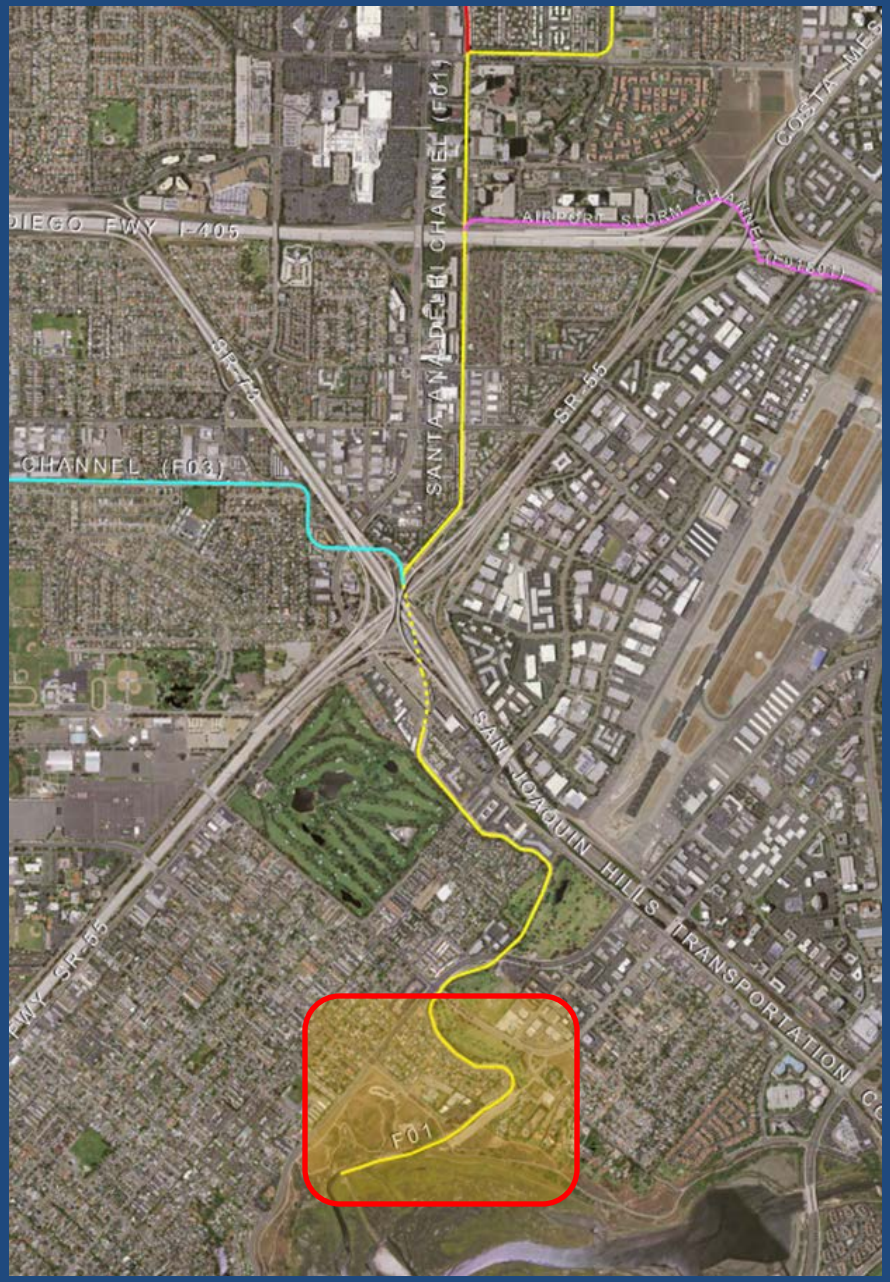
1991 – OCFCD received notice from USACE

"…no additional permits would be granted until OCFCD completed a comprehensive mitigation program for the entire channel, including retroactive mitigation for work completed after July 1986. "

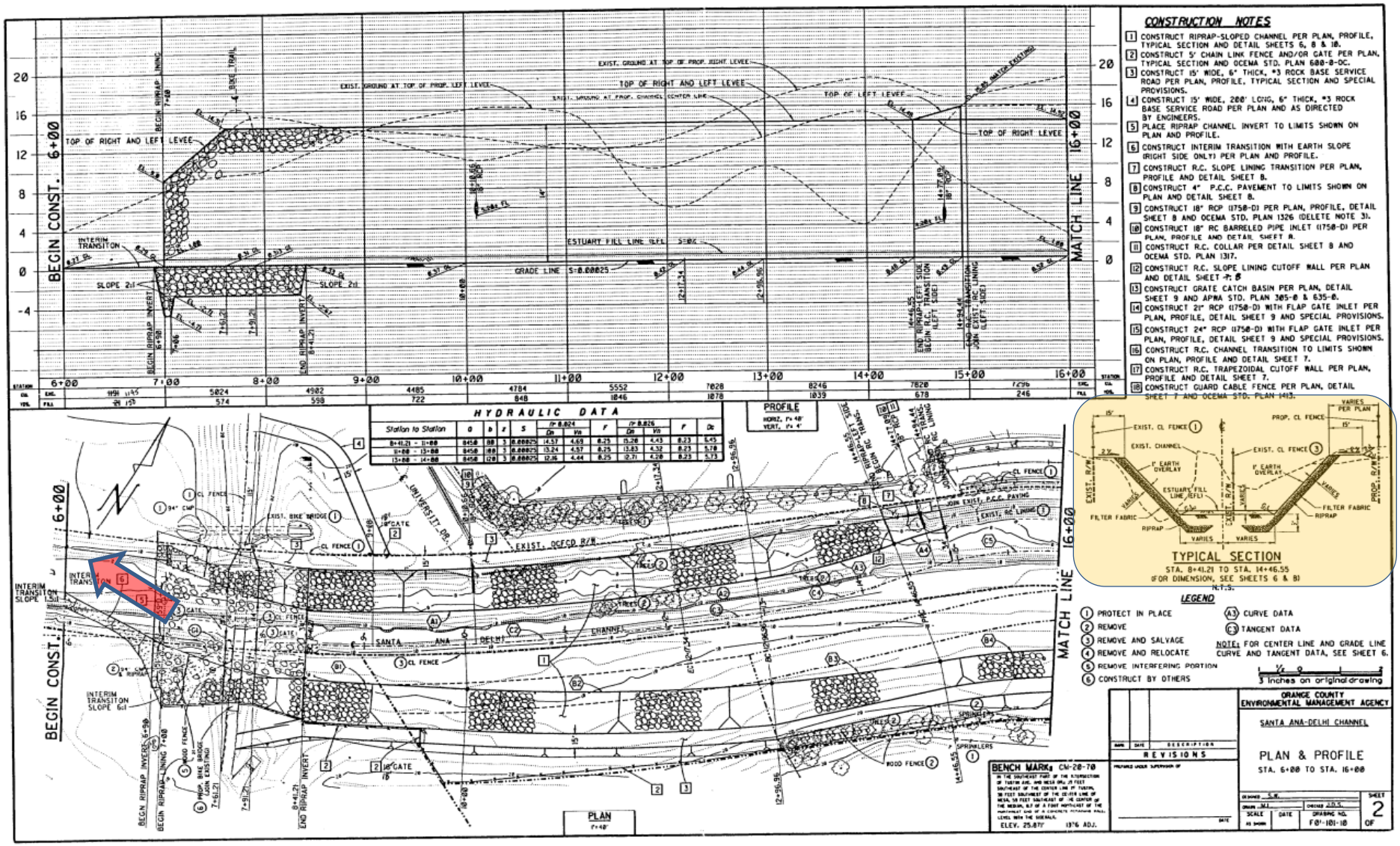
A comprehensive study was prepared & EIR #527 was finalized in 1994

The Agreement:

…to create saltmarsh and brackish marsh wetlands at the lower reach (F01-2) to offset all impacts associated with upstream improvements and the remaining channel improvements.



Final EIR No. 527



Engineering plans per the EIR (Appendix B)

STAKEHOLDERS

- OC Public Works
- Consultants
  - Geosyntec
  - Chambers Group
  - MBI (RBF)

- Agency Stakeholders
  - OC Parks
  - Regional Water Quality Control Board
  - California Department of Fish & Wildlife
  - California Coastal Commission
  - U.S. Army Corps of Engineers
  - U.S. Fish and Wildlife Service
  - City of Newport Beach
  - City of Santa Ana
  - OC Watersheds
  - State Lands Commission

Alternatives Analysis

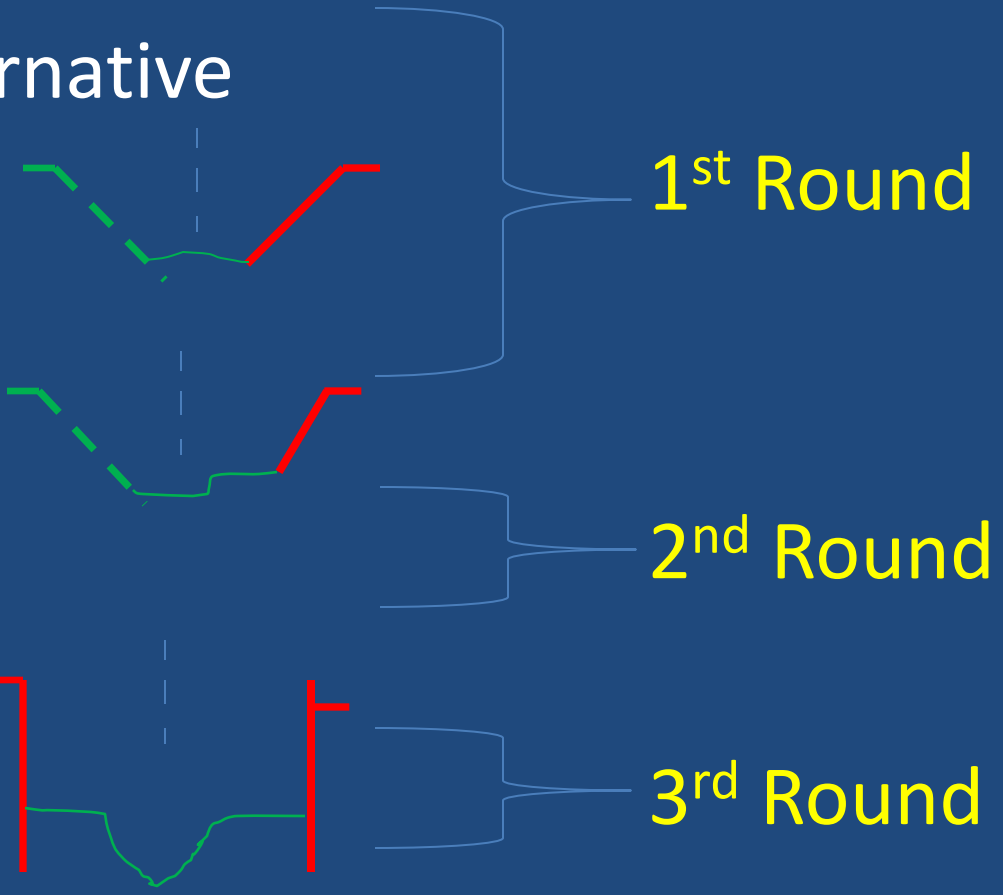
Santa Ana-Delhi (F01)

Objectives

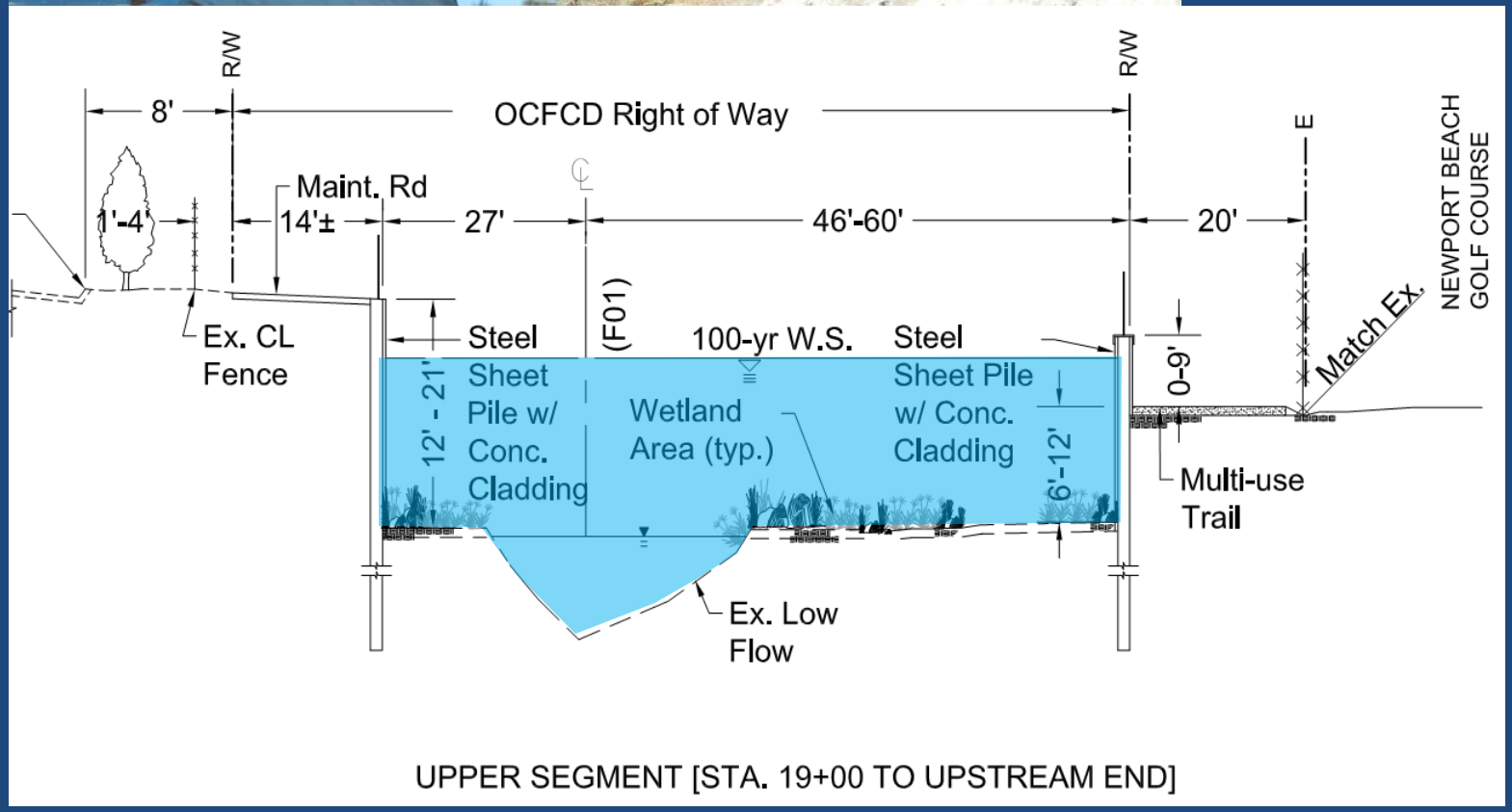
- **Flood Protection**
- **Habitat**
- **Long-Term Erosion and Sedimentation**
- **Cost**
- **Schedule**
- **Recreation**

Investigated Project Alternatives

- 2012 Preferred Alternative
- New Alternative 1
- New Alternative 2
- New Alternative 3
  - **Alt. 3 Modified**

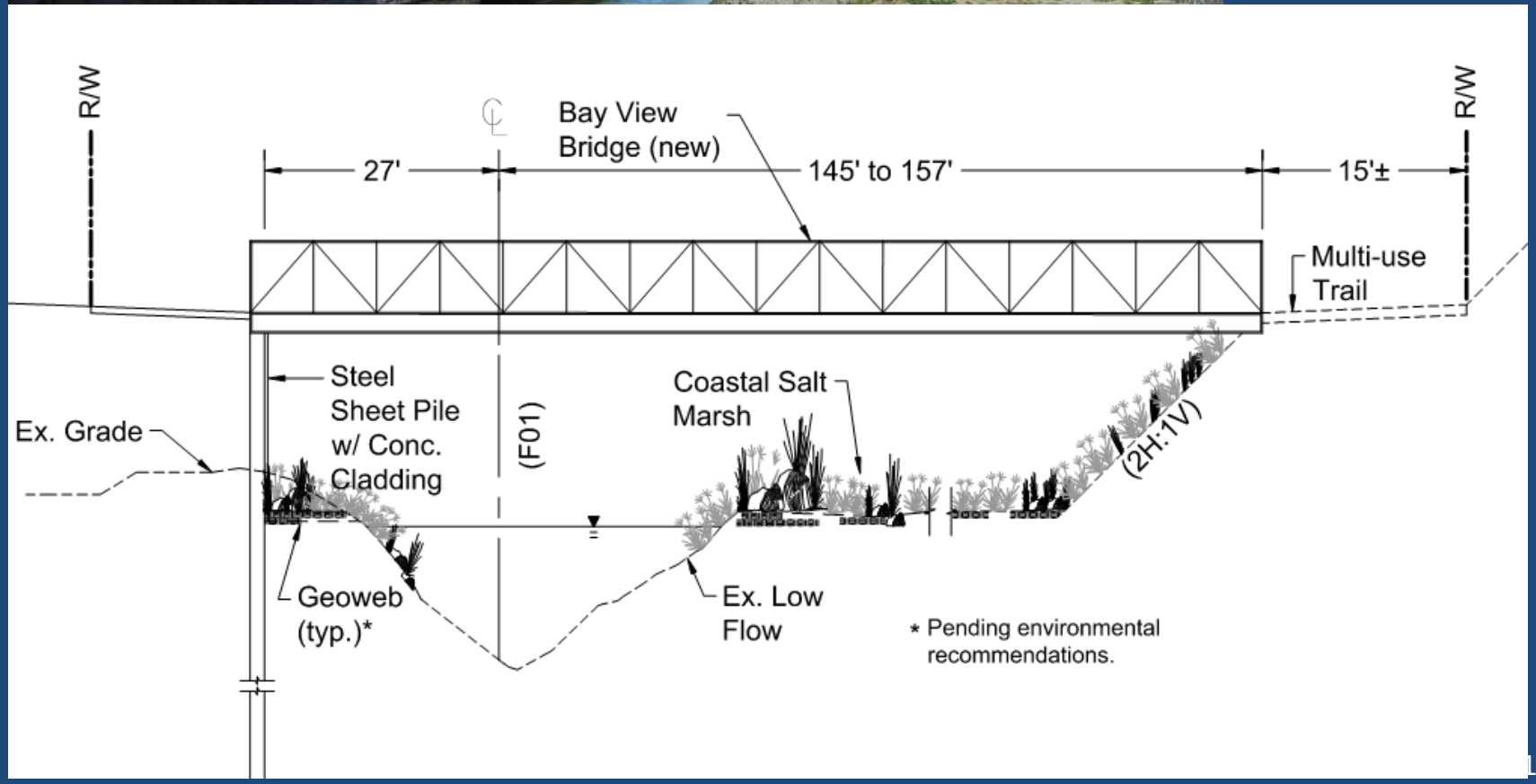


PROPOSED IMPROVEMENTS (upper segment)

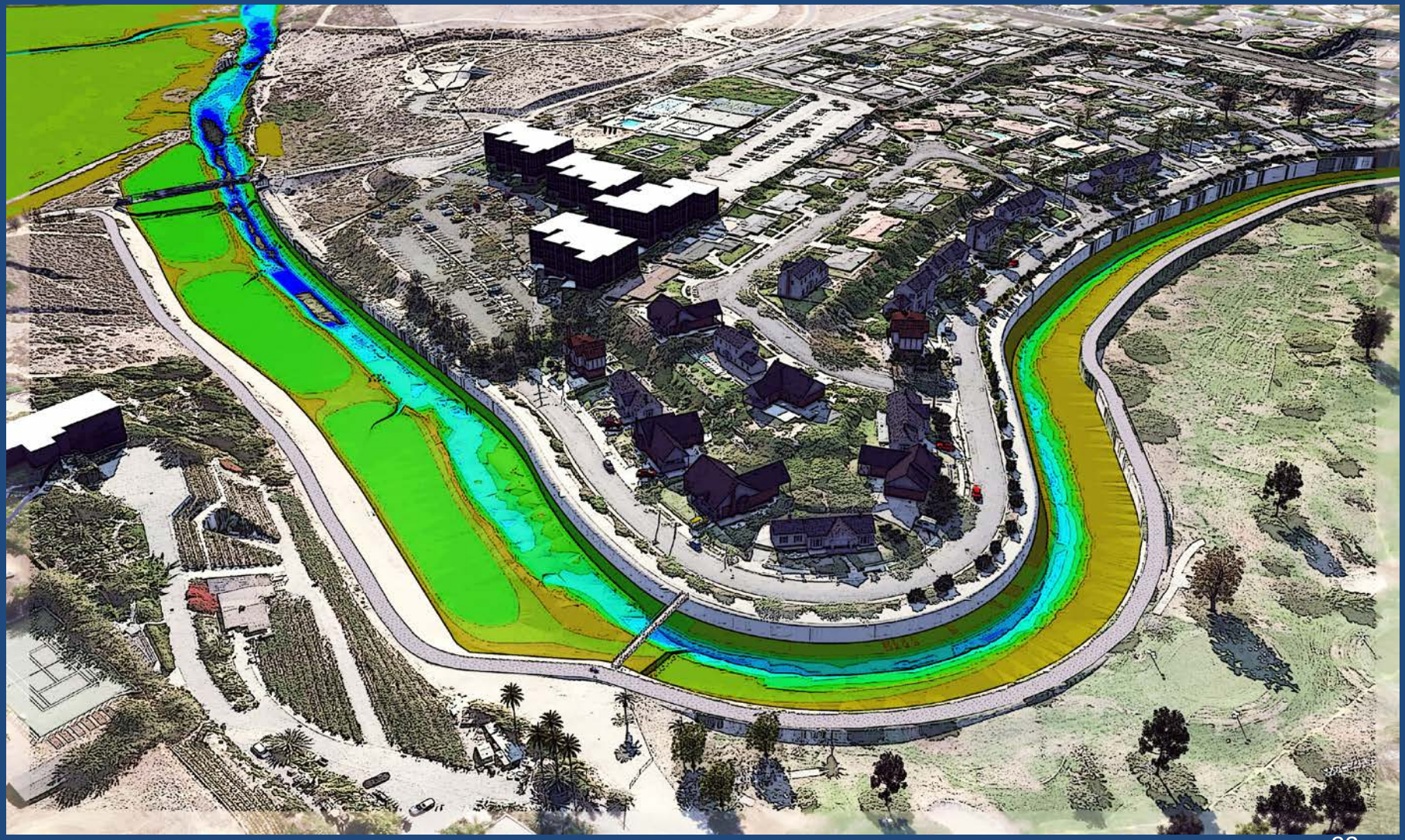


UPPER SEGMENT [STA. 19+00 TO UPSTREAM END]

PROPOSED IMPROVEMENTS (lower segment)



Alternative 3 Mod.



EXAMPLE - EAST GARDEN GROVE-WINTERSBURG CHANNEL (C05)

BENEFITS

- Reduces the potential for flooding and scour associated with high magnitude storm events
- Creates valuable tidal marsh habitat
- Provides greater wetland connectivity to Upper Newport Bay
- Eliminates/minimizes long-term erosion of channel banks and beds
- Increases coastal access

CEQA & PERMITS

California Environmental Quality Act

- Addendum to the existing EIR

Regulatory Permits

- CRWQCB - 401
- USACE- 404
- CA Dept. of Fish and Wildlife – 1600
- CCC – Coastal Development Permit

Other permits

Cost & Schedule

COST - Approx. $16M

(to be funded by OCFCD)

SCHEDULE - Early 2018

QUESTIONS?

Alternative Development

Tidal Influence

Datum	Elevation (NGVD29)
Max Tide (per OCFCD)	5.5’
Max (Highest Observed)	5.19’
HAT (Highest Astronomical Tide)	4.7’
MHHW	2.93’
MHW	2.19’
MSL	0.29’
MLW	-1.56’
MLLW	-2.48’
LAT (Lowest Astronomical Tide)	-4.4’
Min (Lowest Observed)	-4.83’

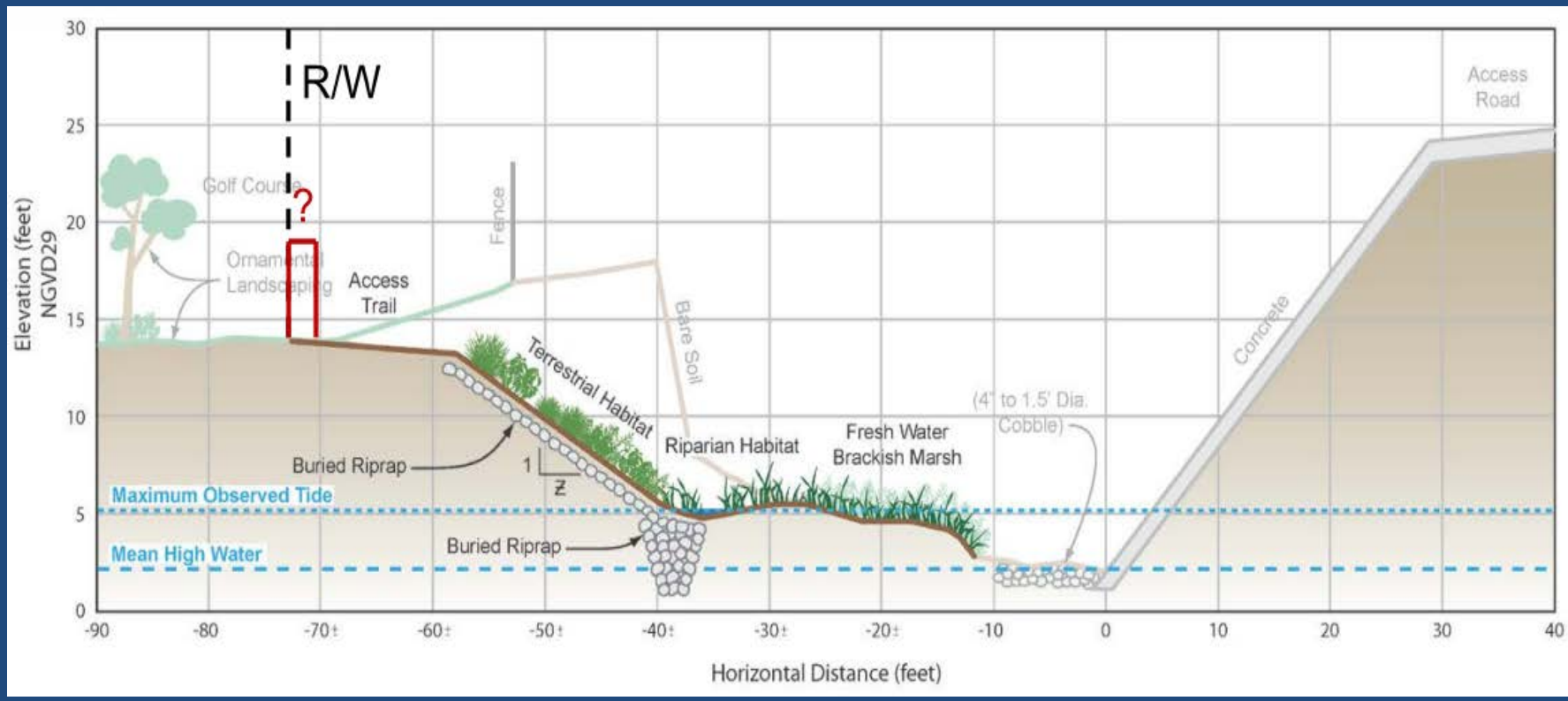
Freshwater & Terrestrial

Tidal/Brackish Marsh

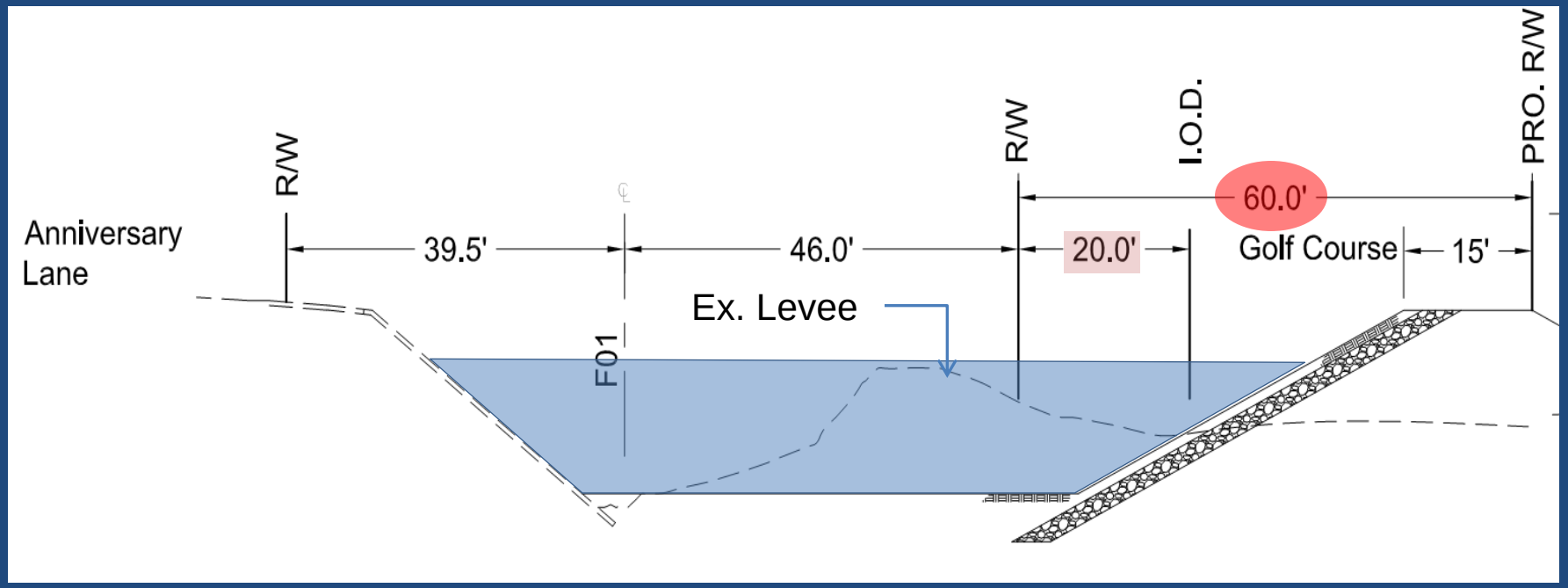
Mud Flat

Open Water

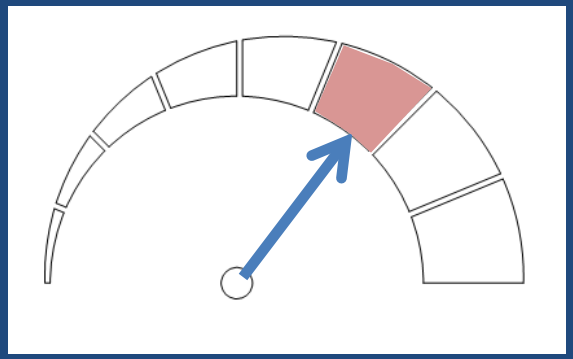
Alternative Development



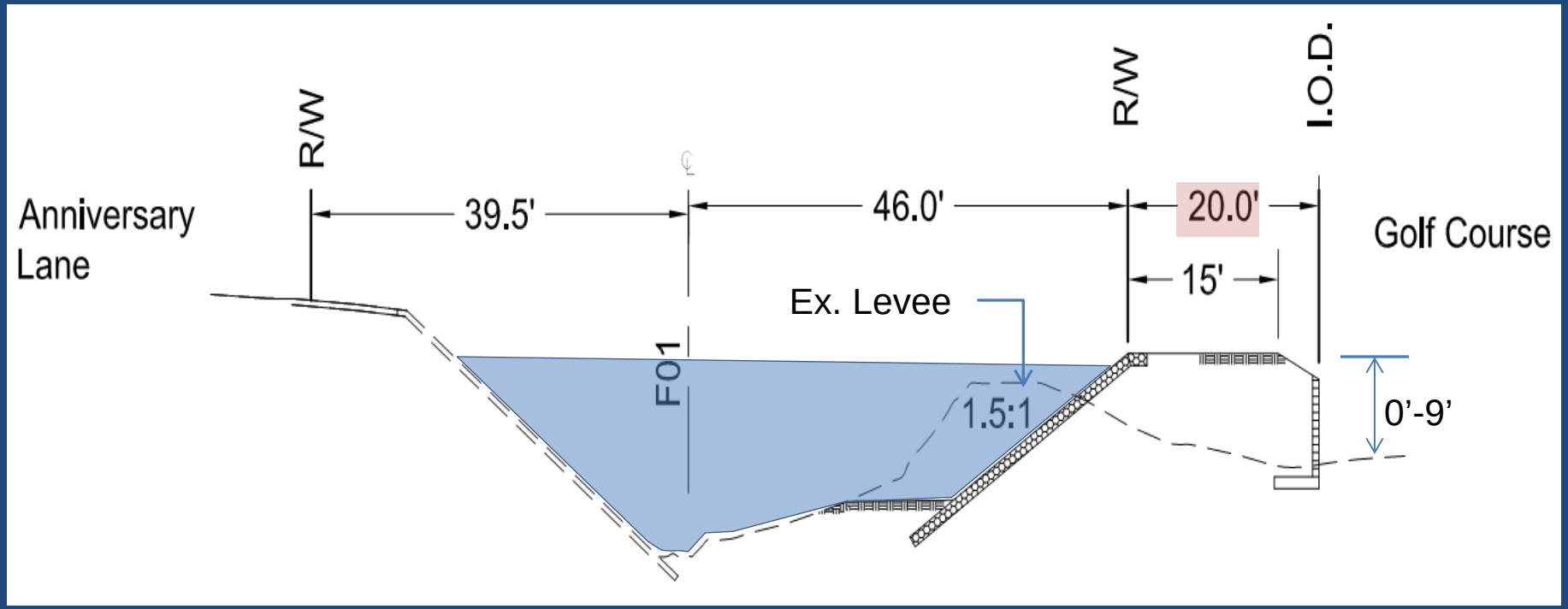
2012 Alternative



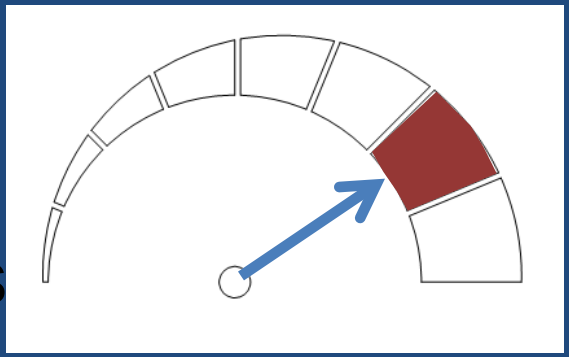
10.2± fps



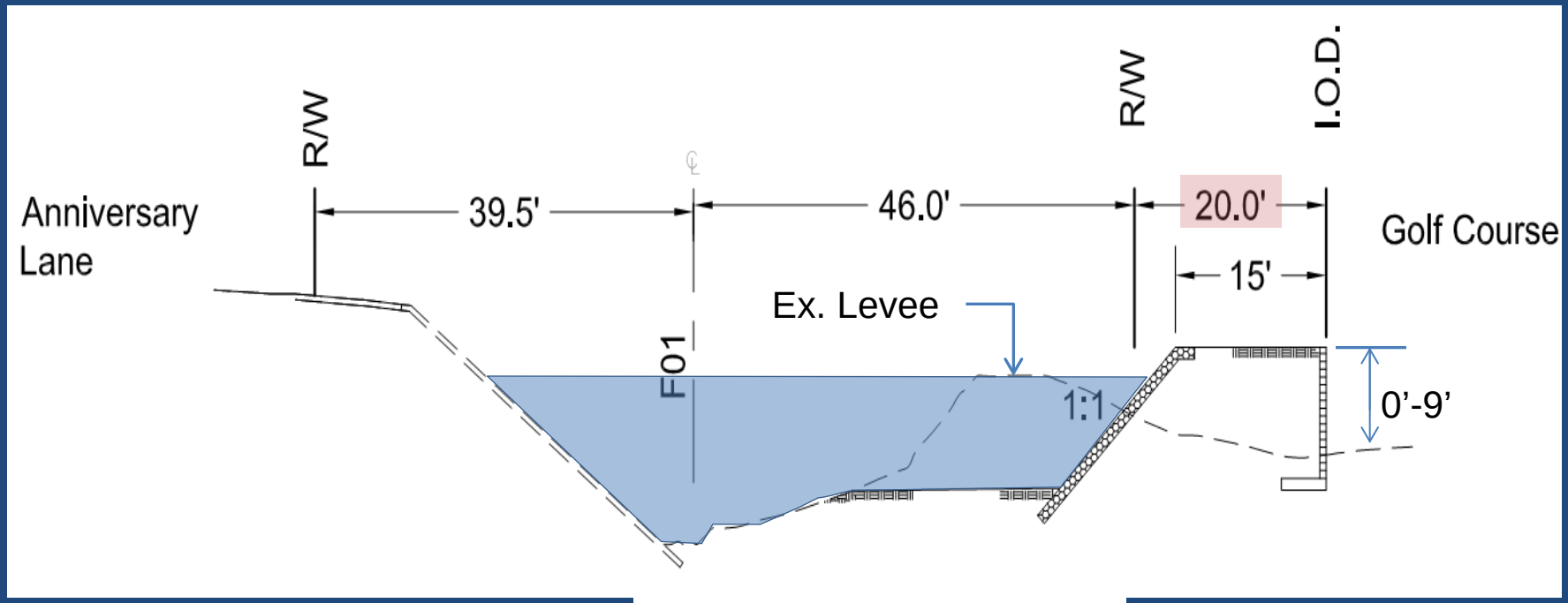
Alternative 1



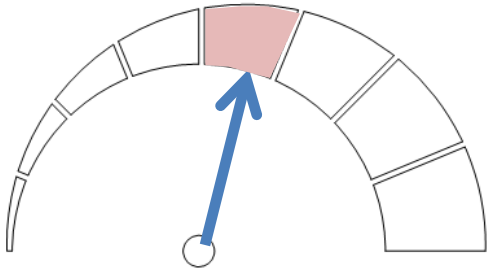
10.4± fps



Alternative 2



9.4± fps



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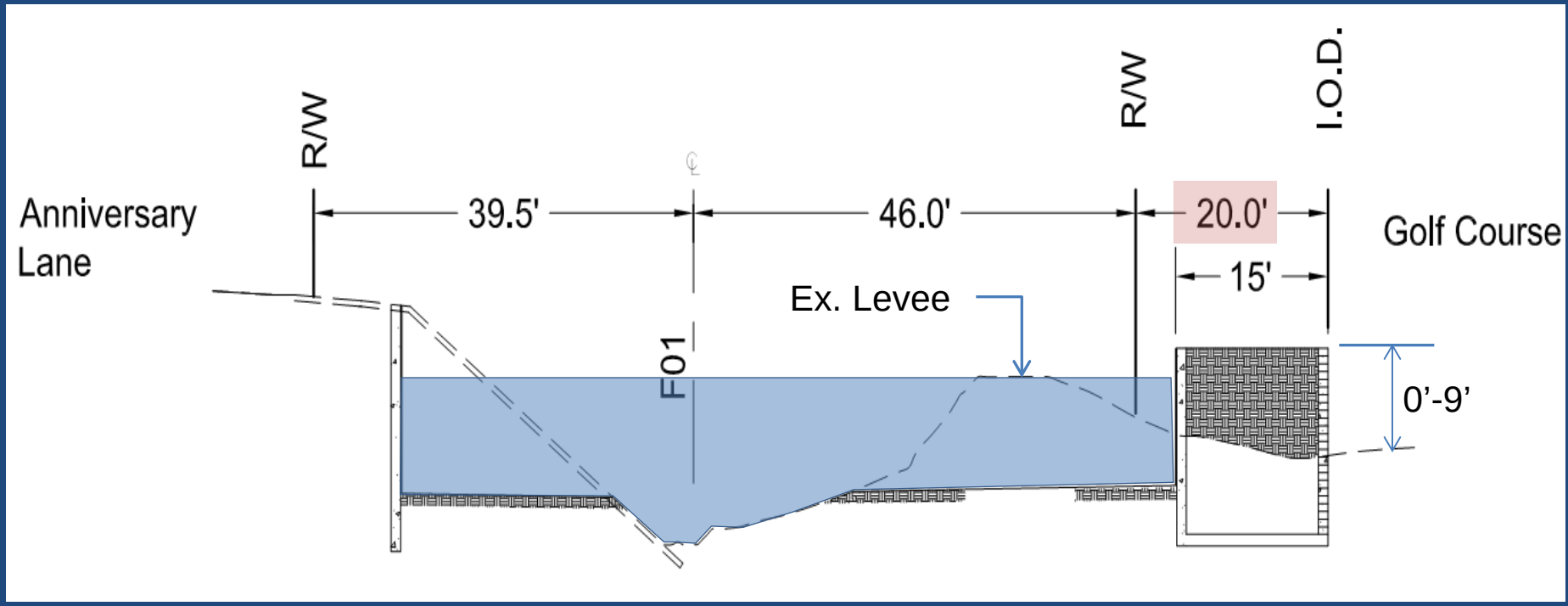
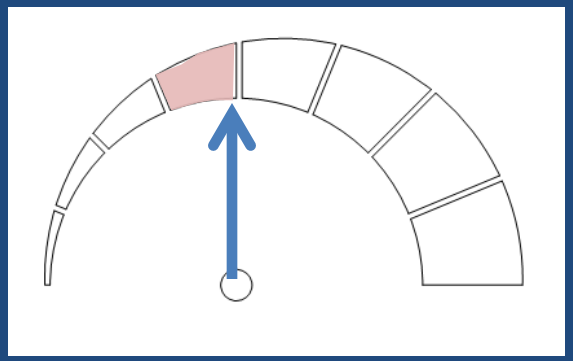
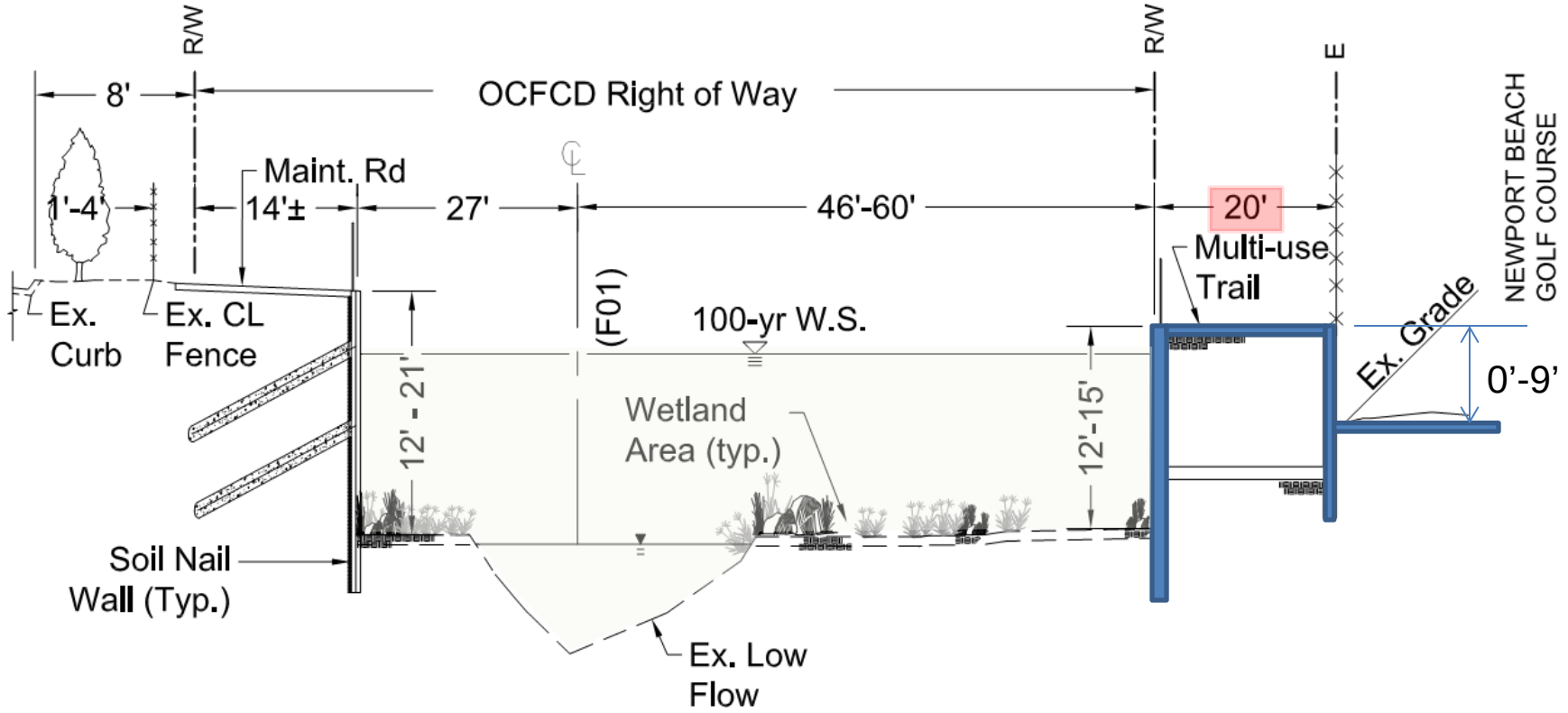


8.6± fps

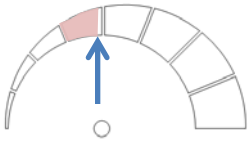


ALT. 3

~$13 M*



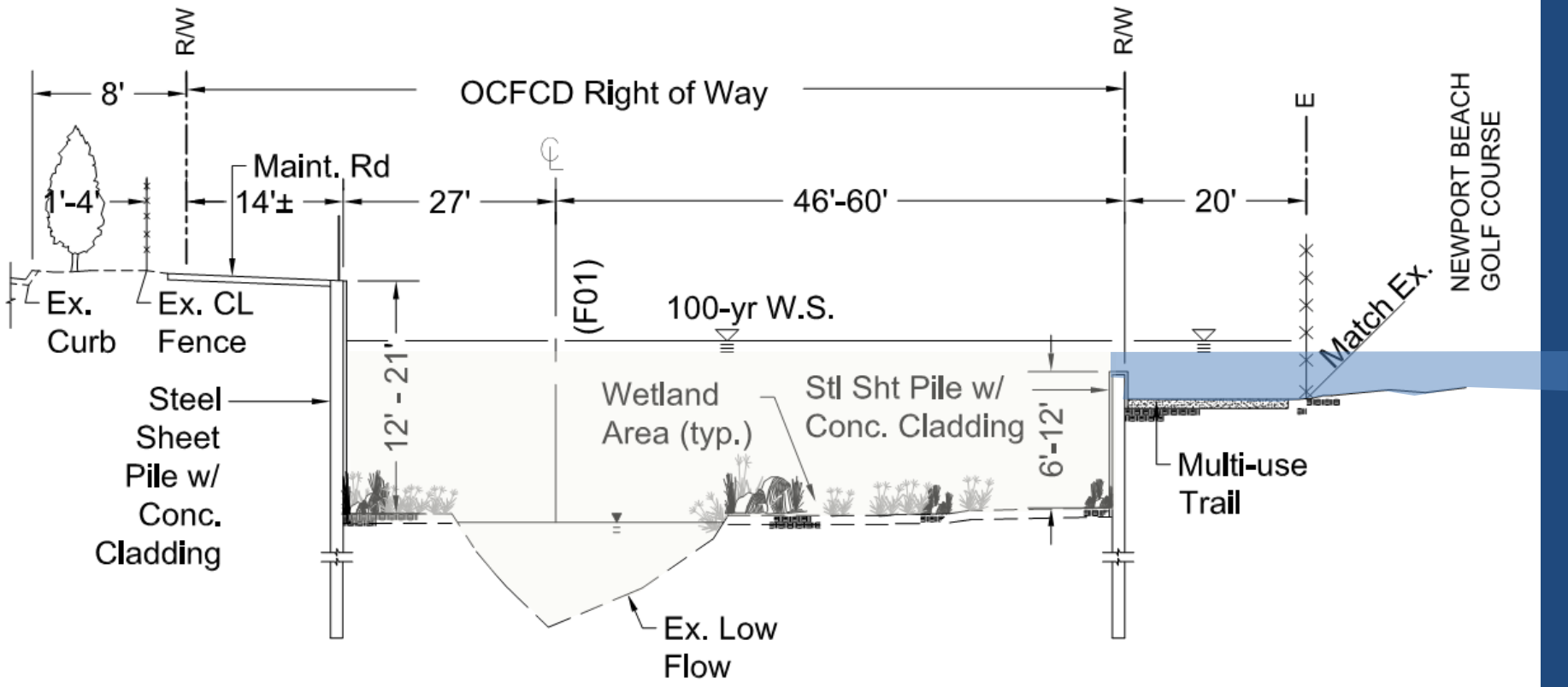
UPPER SEGMENT [STA. 19+00 TO UPSTREAM END]



8.6± fps

ALT. 4A

~$15 M*



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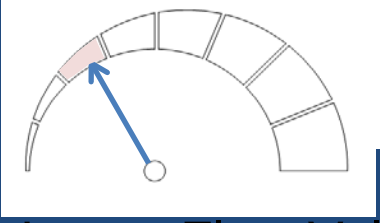
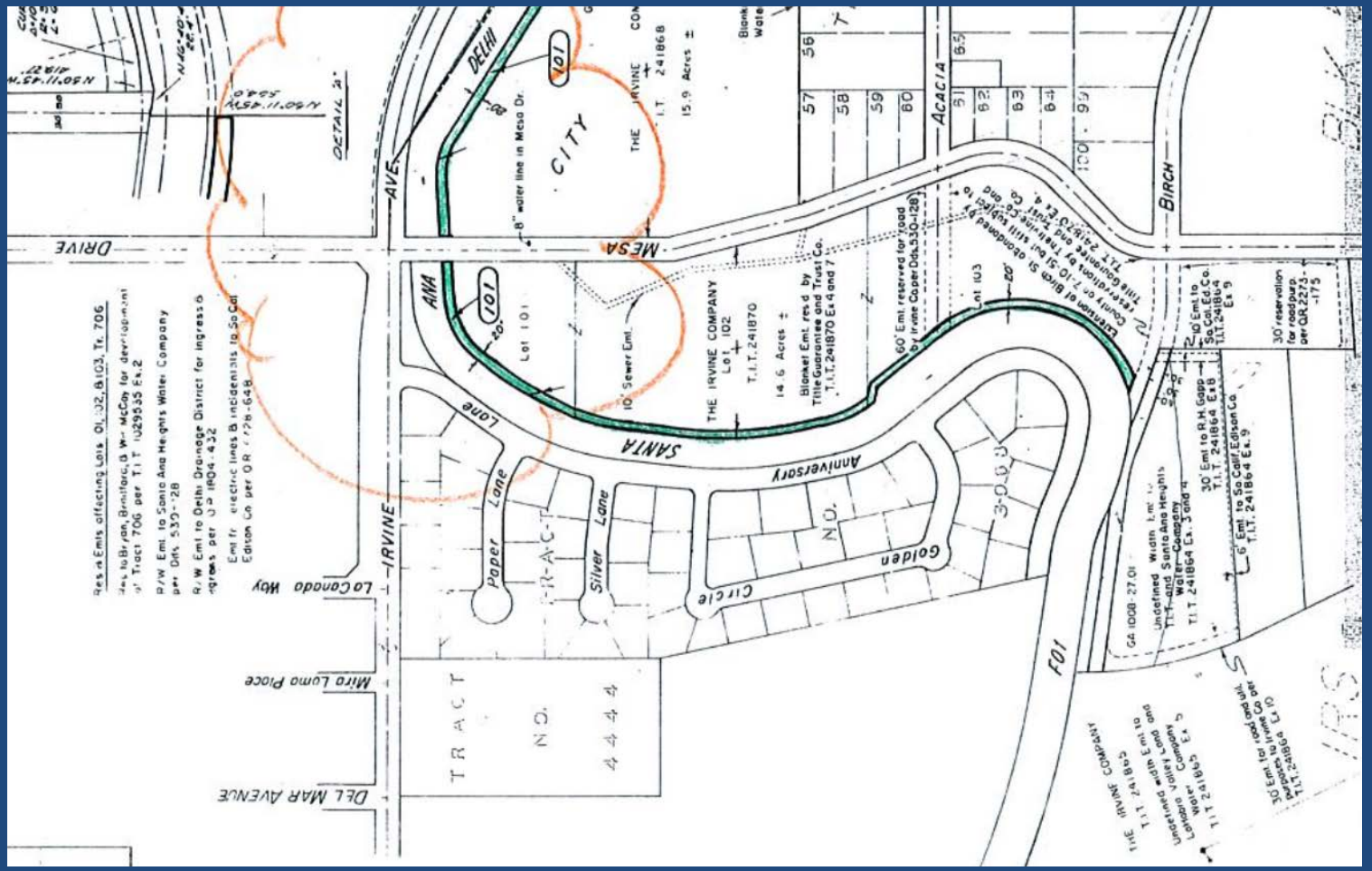


Lower Flow Velocities


“BACK NINE”
(JWA)
“FRONT NINE”
(NBGC LLC)
PROJECT SITE

20’ Irrevocable of Dedication (IOD)



20’ Irrevocable Offer

IRREVOCABLE OFFER TO CONVEY
EASEMENT

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

THE IRVINE COMPANY, a West Virginia corporation (owner),
and GEORGE C. LANE, STEVEN G. LANE and CHRISTOPHER JONES (lessees)

hereby IRREVOCABLY OFFER TO DEDICATE to ORANGE COUNTY HARBORS, BEACHES AND PARKS DISTRICT, an easement and right of way for RECREATIONAL purposes in, on and over the real property in the County of Orange, State of California, described as:

20’ Irrevocable Offer

It is mutually understood and agreed that the said offer may be accepted by Resolution of the Board of Supervisors of said District whenever, in the judgment of said Board, the property is needed for recreational purposes.

It is further understood and agreed that upon such acceptance by said District, it shall mail or deliver a copy of its resolution of acceptance to the then owners at the address shown on the latest secured assessment roll in the County where said property is located, and within 60 days thereafter said owners shall remove any and all permanent structures that are affixed to the above-described strip of land, and if same are not removed within said 60-day period said owners shall hold the said District free and harmless from any and all liability for its destruction or removal of same.

It is further understood and agreed that this offer is irrevocable and shall be absolutely and perpetually binding upon the undersigned owners, their heirs, successors and assigns.

It is further understood and agreed by the parties hereto that the above-described easement shall terminate on January 31, 2027.

Upon acceptance and use of above easement by said District, said District shall be responsible for providing adequate security fencing between above-described easement area and adjoining southwesterly property currently leased for a golf course development between above-stated owner and lessees.

Grantors, for themselves, their heirs, successors and assigns, do hereby release grantee, its officers, employees and agents, from any and all liability arising out of the use of said land for the purposes stated or implied herein.

BK 1446PG 212

DATED: 10-21-74

THE IRVINE COMPANY

By _____
VICE PRESIDENT

By _____
ASSISTANT SECRETARY

THE IRVINE COMPANY SEAL WEST VIRGINIA

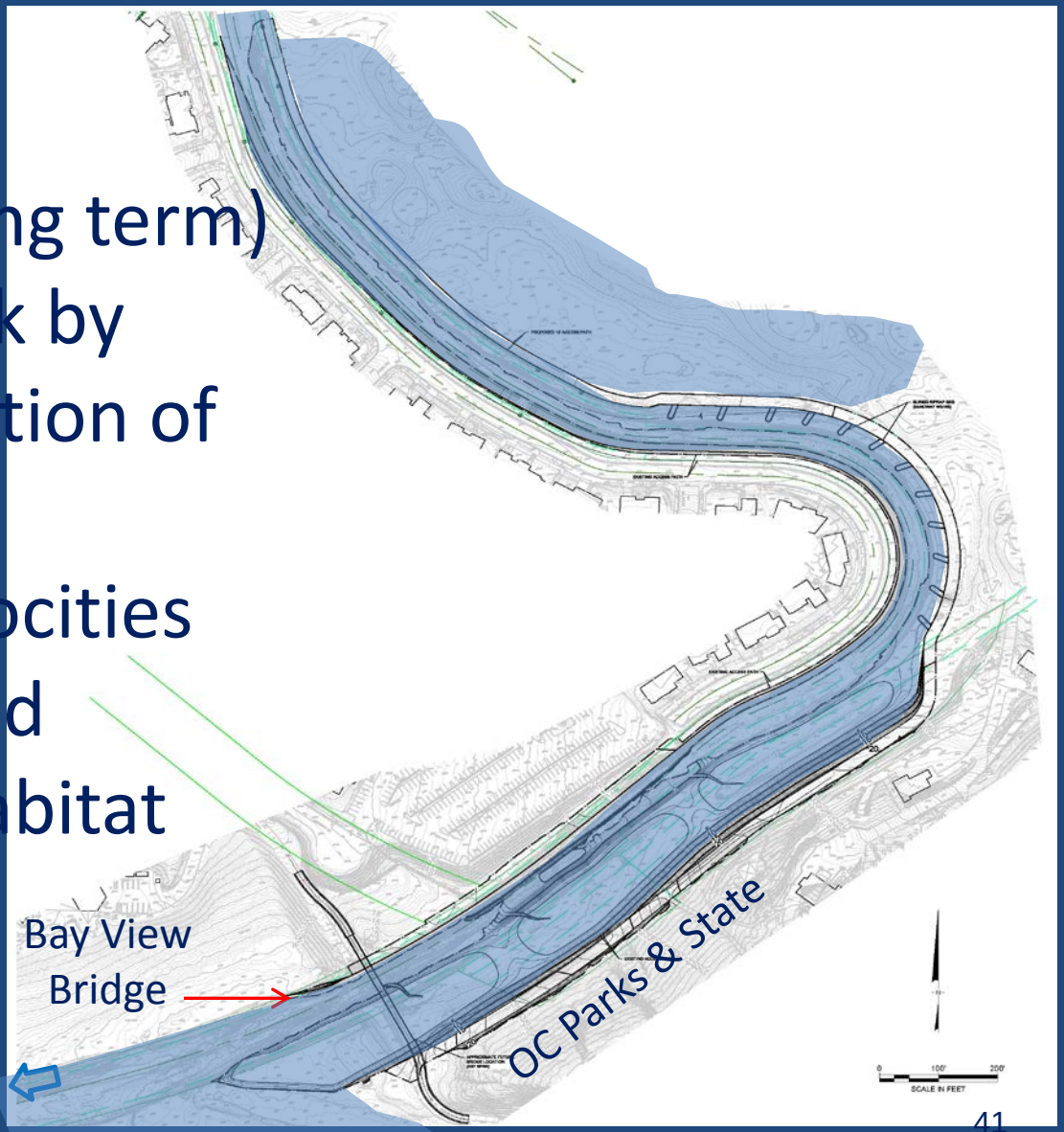
Signed in the presence of:

LESSEES:

GEORGE G. LANE

Why Alternative No 4A?

1. Cost-effective (long term)
2. Reduces flood risk by recapturing a portion of the floodplain
3. Reduces flow velocities and the associated degradation of habitat



Net Vegetation Habitat Value Comparison

Habitat (acres)	2012 Preferred Alternative			New Alternative 1			New Alternative 2			New Alternative 3		
	Loss	Gain	Net	Loss	Gain	Net	Loss	Gain	Net	Loss	Gain	Net
Southern Coastal Salt Marsh	0.47	0.52	0.05	0.03	2.92	2.89	0.05	3.99	3.95	0.04	5.54	5.50
* Coastal Brackish Marsh	0.27	0.00	-0.27	0.08	0.00	-0.08	0.07	0.00	-0.07	0.10	0.00	-0.10
Coastal Sage Scrub	0.04	0.00	-0.04	0.01	0.00	-0.01	0.01	0.00	-0.01	0.42	0.00	-0.42
Disturbed Coastal Sage Scrub	0.70	2.13	1.43	0.20	2.07	1.87	0.46	1.33	0.86	0.56	0.82	0.26
* Open Water	1.81	6.80	5.00	0.41	0.15	-0.25	0.40	0.15	-0.24	0.50	0.74	0.25
Southern Willow Scrub	0.27	0.00	-0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Brazilian Pepper	0.11	0.00	-0.11	0.06	0.00	-0.06	0.06	0.00	-0.06	0.11	0.00	-0.11
Eucalyptus	0.06	0.00	-0.06	0.01	0.00	-0.01	0.01	0.00	-0.01	0.01	0.00	-0.01
Fan Palm	0.01	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	-0.01
Ornamental Landscaping	2.30	0.00	-2.30	1.12	0.00	-1.12	1.13	0.00	-1.13	1.22	0.00	-1.22
Ruderal	0.23	0.00	-0.23	0.01	0.00	-0.01	0.01	0.00	-0.01	0.23	0.00	-0.23
Developed	0.22	1.69	1.47	0.20	1.47	1.28	0.19	1.43	1.24	1.13	1.95	0.82
Disturbed	4.67	0.00	-4.67	4.49	0.00	-4.49	4.51	0.00	-4.51	4.72	0.00	-4.72
Waters of the US	2.55	7.33	4.78	0.52	3.08	2.56	0.52	4.15	3.63	0.63	6.28	5.64
Wetlands of the US	0.74	0.52	-0.22	0.11	2.92	2.81	0.12	3.99	3.87	0.14	5.54	5.40

Channel Velocity Comparison

Channel Segment	Storm Frequency	Alt. No. 3	Alt. No. 2	Alt. No. 1	1993 EIR Alt.	No Project Alt.
Vavg. (along NBGC)	100-year	8.9 fps	9.4 fps	10.4 fps	10.2 fps	N/A*
	25-year	7.9 fps	8.6 fps	9.8 fps	9.3 fps	10.2 fps
	2-year	5.5 fps	6.0 fps	7.1 fps	6.7 fps	8.1 fps
Vavg. (between NBGC & The Bay View Bridge)	100-year	6.2 fps	6.8 fps	7.0 fps	5.2 fps	N/A*
	25-year	5.6 fps	6.3 fps	6.7 fps	4.4 fps	9.5 fps
	2-year	3.8 fps	4.4 fps	4.9 fps	3.3 fps	7.5 fps
Vavg. (Exiting The Bay View Bridge)	100-year	6.4 fps	8.8 fps	13.0 fps	14.3 fps	N/A*
	25-year	5.7 fps	7.9 fps	12.5 fps	13.4 fps	17.8 fps
	2-year	3.8 fps	5.3 fps	8.5 fps	11.2 fps	10.3 fps

1993 EIR ALTERNATIVE

(Table No. 7 – Summary of Waters and Values Within the System)

REACH	JURISDICTIONAL ACREAGE				VALUES ASSOCIATED WITH WETLANDS AND OTHER WATERS									
	WATERS		WETLANDS		PHYSICAL		CHEMICAL		BIOLOGICAL		SOCIAL		TOTAL	
	1986	ULTIM.	1986	ULTIM.	1986	ULTIM.	1986	ULTIM.	1986	ULTIM.	1986	ULTIM.	1986	ULTIM.
F01-1	0.7	0.7	0.7	0.7	0.84	0.735	1.015	1.015	1.225	1.225	0.35	0.35	3.43	3.325
F01-2	1.3	2.7	0.4	1.5	0.455	3.24	1.3	4.05	1.625	4.32	0.351	0.999	3.731	12.609
F01-3	0.5	1.1	0.3	0.7	0.225	0.715	0.2	0.44	0.3	0.55	0.02	0.044	0.745	1.749
F01-4	4.2	4.1	0.5	0.7	1.28	2.665	2.52	2.05	3.15	2.05	0.294	0.164	7.224	6.929
F01-5	2.2	0.9	0.6	0.2	0.66	0.585	1.32	0.45	1.65	0.45	0.154	0.036	3.784	1.521
F01-6	0.3	0	0.1	0	0.09	0	0.15	0	0.165	0	0.012	0	0.417	0
F01-7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F01-8	1.2	3	0.2	0.2	0.54	1.8	0.6	0.6	0.66	0.3	0.048	0	1.848	2.7
F01-9	0.3	0.9	0.1	0.4	0.135	0.675	0.15	0.585	0.165	0.585	0.012	0	0.462	1.845
F01-10	0.8	2.3	0.3	0.1	0.36	1.495	0.4	0.23	0.44	0.46	0.032	0	1.232	2.185
F01-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F01-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F01-13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F01-14	2.1	2.1	0.1	0.1	1.26	1.26	0	0	0.315	0.315	0	0	1.575	1.575
F01-15	0.6	0.6	0.1	0.1	0.24	0.24	0.36	0.36	0.15	0.15	0.042	0.042	0.792	0.792
F01-16	0.6	0.6	0.1	0.1	0.24	0.24	0.36	0.36	0.15	0.15	0.042	0.042	0.792	0.792
F01-17	0.3	0.3	0.1	0.1	0.12	0.12	0.18	0.18	0.045	0.045	0.021	0.021	0.366	0.366
F01-18	1.7	1.7	0.1	0.1	1.02	1.02	0	0	0.255	0.255	0.119	0.119	1.394	1.394
F02-1	1.7	1.7	0	0	1.02	1.02	0	0	0.255	0.255	0.119	0.119	1.394	1.394
F02-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F02-3	0.4	0.4	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.028	0.028	0.528	0.528
F02-4	0.9	0.9	0.3	0.3	0.45	0.45	0.45	0.45	0.225	0.225	0.063	0.063	1.188	1.188
F02-5	0.9	0.9	0	0	0.45	0.45	0	0	0	0	0	0	0.45	0.45
F02-6	0.2	0.2	0	0	0.405	0.405	0.27	0.27	0.18	0.18	0.036	0.036	0.891	0.891
F02-7	1.1	1.1	0	0	0.55	0.55	0	0	0	0	0	0	0.55	0.55
F03-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F03-2	1	1	0.3	0.3	0.65	0.65	0.9	0.9	0.1	0.1	0.04	0.04	1.69	1.69
F03-3	0.3	0.3	0	0	0.24	0.24	0.3	0.3	0.03	0.03	0.012	0.012	0.582	0.582
F01S01	0.7	0.7	0.5	0.5	0.525	0.525	0.665	0.665	0.49	0.49	0.056	0.056	1.736	1.736
TOTAL	24	28.2	4.9	6.2	11.935	19.28	11.34	13.105	11.675	12.235	1.851	2.171	36.801	46.791