ATTACHMENT 4

NORTH MARIN WATER DISTRICT

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August 4, 2011

Jack Leibster
Marin County Community Development Agency
3501 Civic Center Drive, Room 308
San Rafael, CA 94903-4157

Re: North Marin Water District Comments on Local Coastal Program Amendments

Dear Mr. Leibster:

North Marin Water District (NMWD) has reviewed the June 2011 Draft Marin County Local Coastal Program Policy Amendments and Proposed Development Code Amendments. We offer the following comments to be incorporated into your proposed amendments prior to adoption by the Planning Commission and Board of Supervisors:

Marin Local Coastal Program **Draft LCP Policy Amendments**

1. Page 93, **C-PFS-5, Community Sewer Systems**. "Require new development within a village limit boundary to connect to a public sewer system if the sewer system is within 400 linear feet of the parcel on which the development is proposed, unless the County Health Officer finds that such connection is legally or physically impossible."

Comment: NMWD provides sewer service to the Oceana Marin development adjacent to old Dillon Beach. NMWD does provide sewer service to a handful of dwelling units (ten) within old Dillon Beach on Ocean View Avenue. Extension of sewer service to other properties within old Dillon Beach would be outside the Oceana Marin Improvement District boundaries and the cost of providing public sewer service for the old Dillon Beach community on a piecemeal basis is very expensive and would result in an unreliable, expensive and difficult to operate mixture of private and public sewer facilities. NMWD has previously identified those lots in old Dillon Beach which have an existing gravity sewer fronting the property and which may be considered for annexation by the District Board of Directors in the future in accordance with NMWD regulations (see attached map). The prescriptive "400 foot" threshold will not work in old Dillon Beach as there is not sufficient collection, treatment or disposal capacity or financing available to carry out such expansion. NMWD requests the policy apply only for those properties identified on the attached map in old Dillon Beach.

2. Page 94, **C-PFS-10, Adequate Onsite Sewage Disposal Systems for Existing Development…** "1. Require connection to a public sewer, if the property is within 400 feet of a public sewer main and it is physically and legally possible to connect to such main;"

Comment: See comment 1.

3. Page 130, **C-PFS-19, Desalination facilities**. "Due to the Coastal Zone's unique natural resources and recreational opportunities of nationwide significance prohibit development of desalination facilities."

Comment: NMWD currently provides community water supply to Point Reyes Station, Olema, Bear Valley, Inverness Park and Paradise Ranch communities from wells adjacent to Lagunitas Creek. Due to the wells' location in the upper tidal reach of Lagunitas Creek, they are under the influence of flows in the tidal reach and subject to periodic salinity intrusion and occasional flooding. A desalination project may be needed to address the water quality concerns resulting from salinity intrusion to the wells. For these reasons we request that limited desalination be authorized in the Point Reyes community water supply if necessary to address drinking water quality requirements.

4. Additionally, we recommend that the description of NMWD water service in West Marin be updated to better reflect existing conditions. A detailed response to Kristin Drumm's request for this information provided on April 21, 2011 is included herein for your ready reference in preparing this description update.

Marin County Local Coastal Program **Proposed Development Codes Amendments**

5. Page 54, "**5. Community sewer systems**. New Development within a village limit boundary shall connect to a public sewer system within 400 feet of the parcel per Land Use Policy C-PFS-5, unless such connection is prohibited by the County."

Comment: See comment 1.

6. Page 55, "**18. Desalination facilities**. Due to the Coastal Zone's unique natural resources and recreational opportunities of nationwide significance, development of desalination facilities shall be prohibited."

Comment: See comment 3.

Thank you for the opportunity to comment.

Sincerely,

Chris DeGabriele
General Manager

Enclosures

CD/rr

T:\GM\West Marin\2011\County LCP comments 2011.doc

Chris DeGabriele

From: Chris DeGabriele
Sent: Thursday, April 21, 2011 9:44 AM
To: 'Drumm, Kristin'
Subject: RE: West Marin Water Information

Kristin,
Attached is a detailed response to your information request below. I'm assuming you'll use the info for the Local Coastal Plan update for the WM communities at the base of Tomales Bay. There's more here than you likely need, but you can cut and paste as you see fit. I'd appreciate the opportunity to comment on any draft that you prepare prior to publication.
Thanks,
Chris DeGabriele

From: Drumm, Kristin [mailto:KDrumm@co.marin.ca.us]
Sent: Wednesday, April 13, 2011 3:42 PM
To: Chris DeGabriele
Subject: RE: West Marin Water Information

Hi Chris,

I apologize for my delayed response. I am interested in information for the following:

1. The number of active connections in the entire Point Reyes Water System, and for each of these communities: Point Reyes Station, Olema, and Inverness (including Paradise Ranch Estates).
2. A breakdown of connections by users per community, for example, the number of residential, commercial, agriculture, etc.
3. Are there any improvements or upgrades planned?
4. What are the projected water use demands for the next 20 years for these areas? Is there enough supply?

Thanks,
Kristin

From: Chris DeGabriele [mailto:cdegabriele@nmwd.com]
Sent: Tuesday, March 29, 2011 4:39 PM
To: Drumm, Kristin
Subject: West Marin Water Information

Hi Kristin,
I'm happy to send you a copy of the NMWD 2005 UWMP but it doesn't address our West Marin Water Improvement District because the communities served don't meet the thresholds requiring an UWMP. Give me a call to let me know what specifically you'd like to know and we'll get it for you.
Chris DeGabriele
(415)897-4133

NMWD WEST MARIN WATER SUPPLY INFORMATION FOR KRISTIN DRUMM 4/21/2011

The communities of Point Reyes Station, Olema, Inverness Park, and Paradise Ranch Estates utilize groundwater that is pumped from two wells adjacent to Lagunitas Creek. The wells serving the West Marin distribution system are founded in the alluvial aquifer that underlies the Lagunitas Valley and operated by the North Marin Water District (NMWD). Significant aquifer recharge occurs through streambed infiltration along Lagunitas Creek. The local watershed runoff and upstream reservoir releases provide more than sufficient recharge to meet the water use demands of the West Marin service area and to maintain instream flows for fish.

Below are the numbers of active accounts today:

	Point Reyes Station	Olema	Inverness Park	Paradise Ranch Estates	Total
Agriculture	5	3	1	0	9
Commercial	61	14	3	2	80
Residential	340	28	153	154	675
Total	406	45	157	156	764

NMWD historically has relied on the Coast Guard Wells to supply water for the NMWD West Marin service area. The wells are located to the south of the NMWD Point Reyes Water Treatment Plant, which is located approximately 500 feet from the end of Commodore Webster Drive at the Point Reyes Station Coast Guard Housing Facility. Due to the wells' location in the upper tidal reach of Lagunitas Creek, they are under the influence of flows in the tidal reach of Lagunitas Creek and subject to periodic salinity intrusion and occasional flooding.

NMWD diverts water from Lagunitas Creek through a Water License and two Water Right Permits. Water License 4324B allows NMWD to divert water between May 1 and November 1 of each year at a rate not exceeding 0.67 cubic feet per second (cfs) for a maximum diversion of 148.8 acre-feet per year. The authorized points of diversion (POD) under this License include the Giacomini Ranch site (POD 1), the Coast Guard Wells (POD 2), and the Downey Well (POD 3). The License contains a number of stipulations that limit or prohibit diversion when streamflow in Lagunitas Creek falls below levels needed to protect fish and wildlife.

Water Right Permit 19724 allows diversion of 0.699 cfs (maximum of 212.7 acre-feet diverted) on a year-round basis. Water Right Permit 19725 allows a maximum diversion of 0.961 cfs (292.5 acre-feet maximum) on a year-round basis. The Permits authorize diversion from the Coast Guard Wells. Pursuant to State Water Resources Control Board Water Right Order 95-17 (WR 95-17) the water rights under these two Permits are junior rights that are not available during the summer months (July through October) of dry years. A dry year is defined as a year in which the total precipitation that occurs from October 1 through April 1 is less than 28 inches as measured at the Marin Municipal Water District's Kent precipitation gauge. Since WR 95-17 has been in place no dry years have occurred.

The NMWD Gallagher Pipeline project proposes to change POD 1 from the Giacomini Ranch site to the Gallagher Well site and includes drilling one additional well at NMWD's Gallagher Wells site and constructing a pipeline to connect the existing and new well at this well site to NMWD's Point Reyes water treatment plant. There is one existing well at the Gallagher Well site, but the well is not connected to the NMWD treatment and delivery system, and it has not been used since it was developed. The water from these wells would be used to supplement the

existing Coast Guard Wells, which are the primary water source for the Point Reyes Water Treatment Plant. The proposed project also includes construction of a new stream gauging station, demolition and abandonment of the existing NMWD Downey Well, and the change in purpose of use of existing NMWD Water Right Permit 19724 from municipal and irrigation to instream uses. A project site map is shown on Figure 1.

The Gallagher Ranch site is upstream of any flooding and tidal reaches of Lagunitas Creek. However, the existing NMWD Gallagher supply well has a limited flow capacity (170 gallons per minute) and is not connected to the West Marin distribution system. This project would increase the Gallagher Well site's capacity and integrate those wells into the District distribution system. Because the Coast Guard Wells largely have good water quality, are reliable during most months, and have ample recharge, the Coast Guard Wells will continue to be the primary source of supply.

The historic salinity intrusion problem at the Coast Guard Wells may be exacerbated by sea level rise and the National Park Service's conversion of the Giacomini Ranch to tidal wetland, which will increase salinity in portions of Lagunitas Creek. According to the Final EIS/EIR for the Giacomini Wetland Restoration Project, the Park Service will not implement the Olema Marsh portion of the restoration project until either further studies are done to determine whether that part of the restoration would increase salinity; new information is received showing that the project would not adversely pose a threat to NMWD water quality; or NMWD constructs the pipeline connecting the Gallagher Wells to the treatment plant.[1] The proposed project would satisfy the third criterion, thereby allowing the Park Service to conduct the proposed Olema Marsh restoration.

The Gallagher Well site is located on a small parcel of land (130 feet by 85 feet) owned by NMWD on property commonly called the Gallagher Ranch (14500 Point Reyes-Petaluma Road), which is located 1.3 miles northeast of Highway 1 at Point Reyes Station. Access is provided by Point Reyes-Petaluma Road. The well site is on the south bank of Lagunitas Creek, across the creek from Point Reyes-Petaluma Road near the east end of the private Gallagher Ranch bridge.

NMWD will abandon the existing Downey Well that lies within the Lagunitas Creek stream channel. This well is a hazard, causes adverse impacts to the stream and produces water with poor water quality. The well was originally constructed on the bank of the stream, but the creek has migrated and captured the wellhead, so that currently it is located in the middle of the creek. From 1994 through 2007, this well was used solely to deliver raw water to the Giacomini Ranch for irrigation.

NMWD proposes to amend Water Right License 4324B and Permit 19725 to add the Gallagher Well site as a point of diversion (Proposed POD1). NMWD is petitioning the State Water Resources Control Board (SWRCB) to change the approved points of diversion for License 4324B from the Giacomini Ranch, Coast Guard Wells, and Downey Well to the Coast Guard Wells, Downey Well site, and the Gallagher Wells.

An existing stream gauging station is located between Point Reyes-Petaluma Road and Lagunitas Creek immediately north of the Gallagher Ranch driveway. In order to gauge the streamflow downstream of the area where the existing and the new Gallagher Well would be located, the stream gauge will be relocated to a point about 1,200 feet south of the existing

[1] National Park Service, Giacomini Wetland Restoration Project: Final EIS/EIR, Response C-20, Volume 2, page 8, 2007.

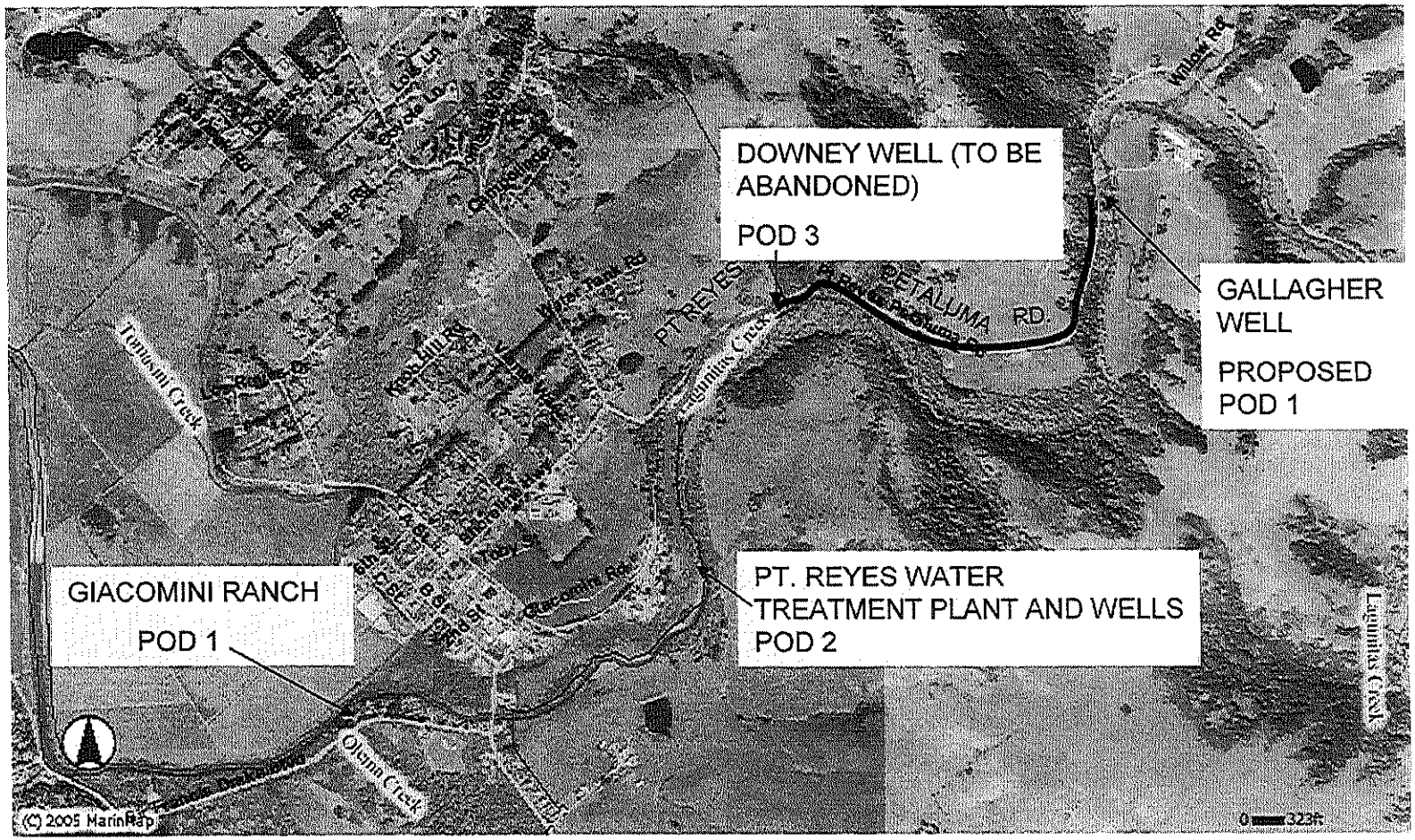
Gallagher Well. This site was identified as an appropriate site by NMWD and U.S. Geological Survey (USGS) staff during a March 17, 2008 site visit. The stream gauge station meets USGS standards; it would be a very small installation measuring approximately 3 feet by 3 feet by 4 feet; it would be elevated to be above the 100-year flood elevation. It would be constructed on the east side of the creek with access from the Gallagher Ranch pasture that borders this section of the creek. It would be powered by either an electrical line from a nearby power pole or a solar cell. It would contain a telephone or cell phone connection to send data.

As allowed under California Water Code Section 1707, NMWD proposes to dedicate the water that the District can now divert under its Water Right Permit 19724 to permanent instream use. The Permit allows diversion of 212.7 acre feet of water per year (at a maximum rate of 0.699 cubic feet per second) at the Coast Guard Well site for municipal and irrigation purposes. NMWD is petitioning the State Water Resources Control Board (SWRCB) to change the place of use and purpose of use for 0.699 cubic feet per second (cfs) of water diverted from Lagunitas Creek under Water Right Permit 19724 for municipal uses in the NMWD West Marin Service Area for the purpose of preserving and enhancing wetland habitat, and also for the purpose of preserving and enhancing fish and wildlife resources in Lagunitas Creek pursuant to Water Code Section 1707. The new place of use is defined as instream flows for the protection, preservation, restoration and recovery of aquatic organisms, including but not limited to coho salmon and steelhead trout pursuant to Recovery Planning measures to be developed under the Memorandum of Understanding Among National Marine Fishery Service, California Department of Fish and Game, Army Corps of Engineers, Fish Net4C, Counties of Mendocino, Sonoma, Marin, San Mateo, Santa Cruz and Monterey and the County of Humboldt as executed on May 16, 2002.

Lagunitas Creek is classified as a Flow-Regulated Mainstem River pursuant to the Policy for Maintaining Instream Flows in Northern California Coastal Streams. The above noted change petition(s) and the proposed changed point of diversion result in no additional diversion of water beyond that currently licensed (License 4324B) and permitted (Permit 19725). In fact, the petition to change the purpose of use of Permit 19724 to instream purposes reduces NMWD's cumulative authority to divert water from Lagunitas Creek to a maximum quantity of 441.3 acre feet per year. The available water supply is sufficient to meet the forecast at build-out pursuant to current County of Marin growth estimates (see forecast Attachment 1).

NMWD has made significant improvements to the West Marin Water System and has several large planned projects (Attachment 2). It's not likely the Gallagher Pipeline or Treatment Plant upgrade projects will proceed without grant or loan funding to lessen the cost impact on the small customer base.

GALLAGHER WELLS & PIPELINE PROJECT



LEGEND:

NEW 12" MAIN -

EX. 6" MAIN -

R:\Folders by Job No\7000 jobs\7087\ gallagher well and pipeline project-rev1ppt

FIGURE 1

Forecast of Water Demands - Pt Reyes Water System

By: CD
Orig: 2/26/1992 12:29
Updated: 4/3/2007 0:00
Last: 4/19/2011 15:12

c:\profile\prs\WM 2007 Demand\new.xls
References:
I:\Res\dlb\sacefo\wr use\wm use fy02.xls
I:\Res\scada\spreadsheet\production\point reyes\Point Reyes Water Production.xls

Basic Breakdown in Water Use in 2006 was (DLB spreadsheet - wr use\[wm by type.xls]2005):

	All	AFA	Accounts
Residential	61.43%	180	693
Commercial	16.04%	47	68
Agriculture	9.93%	29	8
Government	12.63%	37	16
All	100%	293	785

Household population density of area is 2.33 according to Census 2000 (Draft Marin Countywide Plan Figure 3-5B).
Therefore each person explains 26% of annual residential use per DU.

Pt Reyes Water System Statistics As of June 30, 2006:

	Pt Reyes Station	Olema	PRE	Inv Park/BV	O'side/Other	All	
System Capacity:							
Finished Water Storage, gal.	580,000	150,000	138,000	160,000	-	1,028,000	ref WM Storage Data
Filter Plant, gpm						700	
Well #1 & Pump, operating alone						360	
Well #2 & Pump, operating alone						200	
Well #1 & #2 Operating in Tandem						530	<-limiting
Connections:							
Active						753	ref 6/06 Monthly Rpt
Inactive						41	
Total						794	
DUs:							
Active						777	ref 6/06 Monthly Rpt
Inactive						41	
Correction for Coast Guard(1)						36	
Total						854	
Sales:							
Avg Ann 2002 - 2006 (Acre Feet)						292	
Pk BiMo 1998 - 2002 (Acre Feet)						65	
In FY 2005/06:							
afa (w/o unaccounted for)						255	
afa/active acct						0.34	
afa (w unaccounted for)						324	
mgd Pk BiMo						0.35	
gpd/active acct						464	
FY 2002-2006 avg:							
CCF/SF DU or EDU						121	
afa/SF DU or EDU						0.28	
Equivalent SF Units(2):						918	
Storage per EDU:						1120	
Production:							
Unaccounted For Water as % of Sales (1997-2006 avg)						18%	
Avg Annual, Acre Feet (1997-2006 avg)						352	
Avg day, cfs (1997-2006 avg)						0.49	
Avg day, gpm (1997-2006 avg)						218	
Avg day of Pk Mo, cfs (July 2001)						0.66	
Avg day of Pk Mo, gpm (July 2001)						295	
Avg day of Pk Week, FY 2001/02, cfs						0.75	
Avg day of Pk Week, FY 2001/02, gpm						335	
Pk Mo to Avg Mo Ratio						1.4	
Pk Week to Pk Mo Ratio						1.1	

County's Estimate of Growth contained in 2001 PRS Community Plan & 2005 Draft Countywide Plan Update:

Existing (3)	445	44	154	158	14	815
Potential (buildout,4)	688	53	214	191	14	1160
Increase DU's	243	9	60	33	0	345
Increase %	55%	21%	39%	21%	0%	42%

Predicted Ultimate Demand:

Assumptions:
(1) Residential will grow per County's prediction & growth will be SF type DU's.
(2) Agriculture will decrease as result of NPS purchase of Giacomini Ranch.
(3) Commercial and Gov't will grow and maintain their same relative relationship or share of residential ie: 47%
(4) Unaccounted For Water will ultimately be: 10%
(5) Pk Mo to Avg Mo ratio remains at: 1.4
(5) Pk Week Mo to Pk Mo ratio remains at. 1.1
(6) Additional Water Conservation achieved between now and buildout is limited to residential fraction and will amount to: 15%
(7) Household Density ultimatly increases from current 2.33 to: 2.5
Associated increase in demand is: 4%

	PR Station	Olema	PRE	Inv Park/BV	All
Existing Base Demand (Avg 1997-2006):					
afa					293
residential portion, afa					183
New Base Demand:					
New Residential, DU's	243	9	60	33	345
Demand, afa/DU					0.28
Demand, afa					96
New Commercial & Gov't, afa					45
Less Agricultural (Giacomini Ranch)					-25
Existing + New Base Demand, afa:					382
Ultimate Demand**:					
Annual, afa:					420
Peak Mo, cfs:					0.79
Peak Week, cfs:					0.89
Peak Week, gpm:					401

** Includes Unaccounted For Water & adjustments for increased household density and water conservation.

Footnotes:

(1) Included in "Gov't" in NMWD records.
Note: There are 36 sf USCG apts and 18 bachelor units currently.
Latter are bedroom w. sink, Share bathrooms. Also mess hall.
(2) Based on annual use of typical SF DU = 0.28 afa.
(3) "Existing" includes 409 Point Reyes Units (from DLB's spreadsheet\wm cust by rate code 063006.xls) and 36 gov't du's.
Olema, PRE, Inv Park/BV and O'side/Other also from DLB spreadsheet.
(4)"Potential" from 2001 PRS Community Plan and 21% growth in Olema and Inv Park/BV.
For PRE NMWD estimate as already subdivided is used.

end

ATTACHMENT 1

West Marin Long Range Improvement Project Plan

4/1/2011

Status Report

t:\gm\west marin\gallagher well\[wm!ripp status report 0411.xls]!ripp (2)

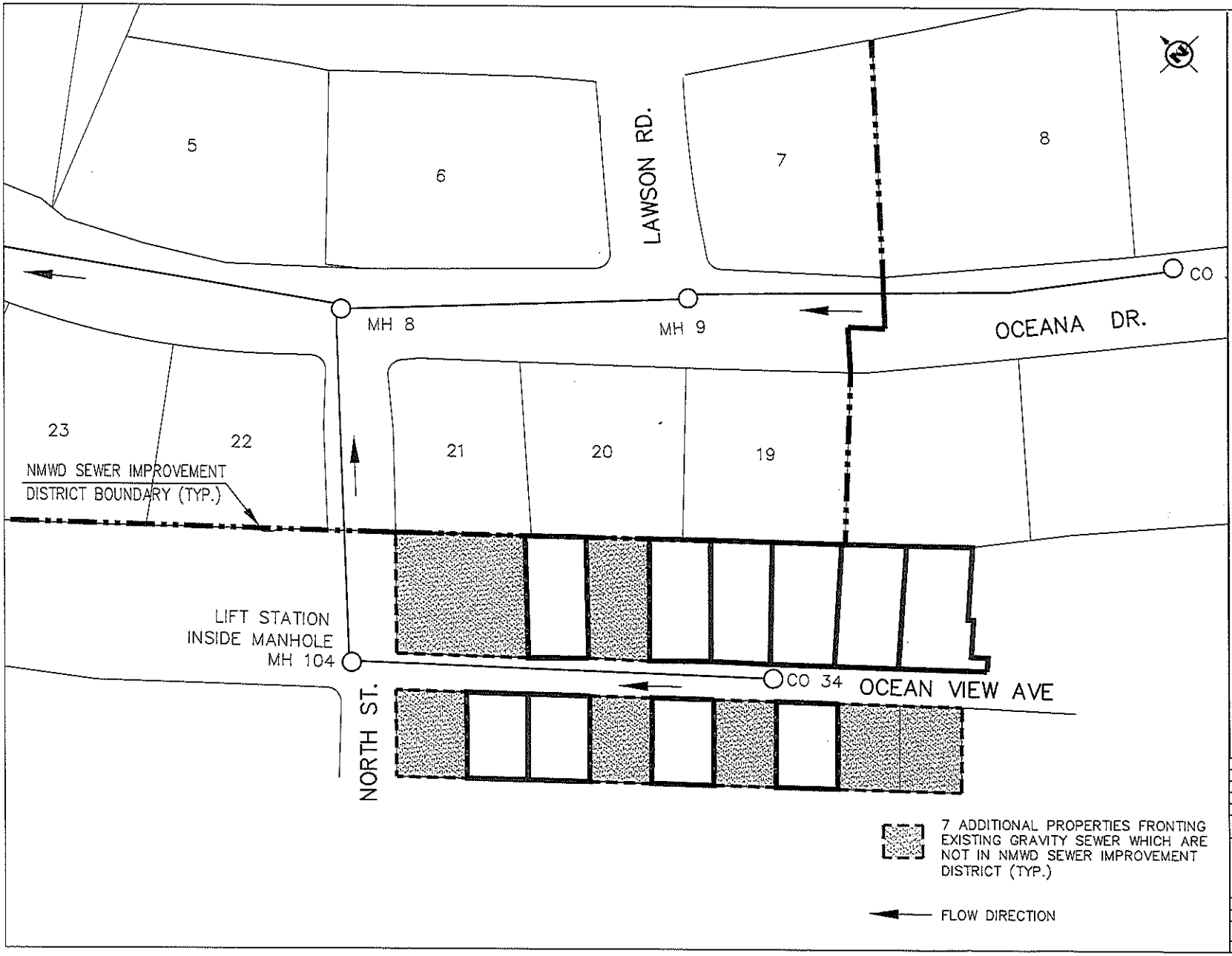
Completed Projects

		4/30/2009	
1	Replace PRE Tank #3 - 25,000 gal	$91,759	Complete
2	Install 3 Standby Booster Pumps & Controls @ PRE	159,990	Complete
3	Bear Valley Pump Station Upgrade	88,132	Complete
4	Replace Pt Reyes 100,000 gal tank w/180,000 gal	399,707	Complete
5	Replace Olema 80,000 gal tank w/150,000 gal	561,742	Complete
6	Install Parallel 8" Main on Hwy 1	180,000	Complete
7	Upgrade Inverness Park PS w/2 150 gpm pumps	157,888	Complete
8	Install Pressure Reducing Valve @ Inverness Pk PS	13,046	Complete
9	Replace 30,000 gal Inverness Park Bolted Steel Tank	164,262	Complete
10	Tank Seismic Upgrades	70,881	In Progress
		$1,887,407	

Planned Projects

1	Replace PRE 25,000 gal Tank #4A w/82,000 gal	$255,000
2	Treatment Plant Solids Handling Facility	200,000
3	Gallagher Pipeline	1,600,000
4	Treatment Plant Upgrade	1,200,000
		$3,255,000

ATTACHMENT 2



NO.	DATE	REVISION	BY	APP.

NORTH MARIN WATER DISTRICT
NOVATO, CALIFORNIA

OCEANA MARIN SEWER IMPROVEMENT

ATTACHMENT 1

DES	DR	CH	SCALE	: NTS	
CD	AC	DM	DATE	: 8/3/11	
APPROVED: CHIEF ENGINEER			SHEET NO.	: 1 OF 1	SHEETS
R.E. C40935			SERVICE AREA 1	JOB NO. 2000	NO. 001