Appendix L.
Sewer Overflow Response Plans
EASTERN MUNICIPAL WATER DISTRICT

PERRIS, CALIFORNIA

<table>
<thead>
<tr>
<th>Maintenance Services Standard Operating Procedures Manual</th>
<th>Date: September 17, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject: Sanitary Sewer Overflow Response Plan (SSORP)</td>
<td>Approved by:</td>
</tr>
</tbody>
</table>

**PURPOSE**

The purpose of the Sanitary Sewer Overflow Response Plan (SSORP) is to minimize the impact of sanitary sewer overflows (SSO's) to the public and the environment. All sanitary sewer overflows must be responded to with minimal delay to begin the necessary steps to mitigate the overflow. Spill containment will be our highest priority, taking into consideration public health concerns. This document will be the guideline and standard operating procedures to follow in the event of a sanitary sewer overflow. This document will be reviewed on a regular basis and changes will be made when they are necessary.

1. To establish standard operating procedures for District Wastewater Collections staff in the event of a sanitary sewer overflows (SSO).

2. To provide clear and concise notification procedures to the appropriate District staff that will assist them in reporting SSO's to the appropriate regulatory agencies.

**AUTHORITY**

1. Assistant General Manager Operations and Maintenance

2. Wastewater Collection Manager

**POLICY**

1. It is the policy of the District to comply with all regulatory agency requirements in regards to reporting and cleanup procedures in the event of a SSO.
2. It is the policy of the Wastewater Collection Division to report all spills regardless of size or origin to the Integrated Operations Center as soon as possible.

DEFINITIONS

1. SSO (Sanitary Sewer Overflow)
2. IOC (Integrated Operations Center)
3. SSMP (Sewer System Management Plan)
4. ERC (Environmental and Regulatory Compliance)

NOTIFICATION PROCEDURES

1. The Wastewater Collection crew will respond immediately to the location of the SSO with the appropriate equipment needed to eliminate and contain the SSO.

2. After the Wastewater Collection staff arrives at the location of a SSO, the person in charge for the Wastewater Collection Division they will report to the IOC and give a condition assessment. After the IOC receives the information on the SSO they will begin the notification procedures.

SPILL RESPONSE PROCEDURES

1. Upon notification during working hours from the IOC Wastewater Collection staff will respond to the site of the problem with Combination Machine.

2. During non-working hours, the Wastewater Collection Division will have two properly trained employees on stand-by ready to respond to a SSO or other emergency within 20 minutes of notification from the IOC.

3. While performing stand-by duty Wastewater Collection staff will take a District vehicle home so that they are able to respond directly to the source of the problem or SSO.

4. The person in acting in the lead position will assess the problem and begin to direct the crew as how to correct the problem or eliminate the overflow. Digital or regular photographs will be taken of the SSO at the point of release whenever possible. This will aid in GPM estimation.
5. If the spill is from a private lateral, the person in charge will contact the IOC and obtain a 124# to bill the private party so that the District can be reimbursed for all cost associated with the SSO.

6. If the problem has evolved to a situation that emergency contractor support is needed for repair or traffic control, we will use the following approved contractors:

**Street Sweeping**

Wagner Water Works  
PH: (951) 943-1199

**Construction Services**

EL-CO Contractors  
Contact: John Wiles  
PH: (909) 887-2610 or (909) 887-1013  
Fax: (909) 880-9091  
Cell: (909) 322-4635

Jeff Carpenter Inc.  
PH: (951) 657-5115  
After Hour Emergency: (213) 216-2117

J.R. Filanc Construction Company  
Contact: David Kiess  
PH: (760) 941-7130

**Earthwork & Grading**

Dependable Equipment Rental & Grading  
Contact: Shane Copenhaver  
PH: (951) 440-8507

Scorpion Backhoe, Inc.  
Contact: James Scott  
PH: (951) 325-2208

**Sewer Line Inspection, Vectoring & Inspection Services**

Innerline Engineering  
Contact: Jim Aanderud  
PH: (951) 658-8541  
Cell: (800) 209-0000

Houston and Harris  
Contact: Steve  
PH: (909) 422-8990

Morris Tested  
Contact: Jeff  
PH: (714) 713-9411
Maintenance Services Standard Operation Procedure
SSORP
Page 4 of 8

National Plant Services, Inc.
PH: (800) 445-3614 or (562) 436-7600

Roto Rooter
Contact: Richard Rainey
PH: (951) 658-8541
24 Hour: (800) 491-7686

Starlite Reclamation
Contact: Chris Jaramillo
PH: (800) 576-9278
Cell: (951) 232-9312

Tunnel Vision
Contact: Starla Hylesworth
PH: (760) 269-5199

Wright Pumping
PH: (951) 654-4840

Restoration Services

Industrial Hygiene Mgmt., Inc.
PH: (626) 447-5237
Contact: Tom Harman Cell (626) 375-6142
Mark Hammer Cell (818) 237-0363

Pipe Rental (for Break By-Pass)

Godwin Pumps of American, Inc.
Contact: Nate
PH: (951) 681-3636
Cell: (951) 317-8250

Rain for Rent
Contact: L. Young
PH: (951) 653-2171

Xylem Pump Rental
PH: (951) 681-3636

EMERGENCY TRAFFIC CONTROL

In the event that the spill is located in a high traffic area, the District will contact the respective municipality for assistance. The following is a list of contacts for each city within the District's sewer service area. This list will be reviewed and updated as needed.

The City of Temecula
Brad Buron
Maintenance Superintendent — Public Works
During Working Hours: (951) 694-6411
After Hours: Temecula Police Department (951) 696-3000
Maintenance Services Standard Operation Procedure
SSORP
Page 5of8

The City of Murrieta
Maintenance Superintendent
During Working Hours: (951) 304-9273
After Hours: Murrieta Police Department (951) 304-2677

The City of Perris
Public Works Superintendent
During Working Hours: (951) 657-3280
Pager Number (951) 830-8599
Emergency Answering Service: (951) 359-2987
After Hours: Perris Police Department (951) 955-2444

The City of Hemet
Street Department Supervisor
During Working Hours: (951) 765-3712
After Hours: Hemet Police Department (951) 765-2400

The City of San Jacinto
Water and Sewer Division Supervisor
During Working Hours: (951) 487-7381
After Hours: San Jacinto Police Department (951) 654-2702

The City of Moreno Valley
Director of Transportation
During Working Hours: (951) 413-3140
After Hours: Moreno Valley Police Department (951) 275-2444

**EMERGENCY RESPONSE EQUIPMENT**

**Vehicles**

#600 Vactor Combination unit
#603 Vac-Con Combination unit
#21 Vactor PD unit
#604 Vactor Combination unit
#384 Vactor Combination unit
#377 High pressure hydro flusher
#165 Spill response trailer
#119 Easement cleaner
#290 6" Pump
#528 6" Pump
#112 6" Hose reel trailer & 1,200' of hose

**Equipment**

2" Trash pump &100' of hose
3" Trash pump &100' of hose
(2) Lateral cameras with mainline capabilities
BYPASS PROCEDURES

If proper flow is not restored within 5 minutes it is critical that the bypass procedures are followed immediately.

1. Locate the nearest manhole that can accept the additional flow.

2. Set up the 3-inch pump for collection lines and the 6-inch pump for transmission lines. This is just a guideline; larger pumps may be needed. The pump discharge hose should be secured or placed far enough into the manhole that it cannot come out during pumping. The pump and pump hose should be protected from traffic by barricades. If additional pumps are needed, they may be obtained by contacting the Mechanical Services Division or the Fleet Services Division.

3. Bypass should be conducted with a vacuum truck by pulling water from the overflowing manhole and discharging it into a downstream manhole.

CONTAINMENT PROCEDURES

Containment of the SSO is the top priority. The District's crew will attempt to keep the SSO in as small an area as possible. If reasonable, the crew should attempt to keep the SSO in the street and out of the storm drain. To insure that the SSO is contained, the crew will use the following methods:

1. Block the storm drain openings or divert the flow with sand or soil. If reasonable, we should keep the flow contained on the street.

2. Should the overflow take place in an area not normally accessible to the public (i.e. fields, etc.), the crew will use any reasonable means to pool the flow in that area for recovery.

3. Should the flow be too much to be contained on the street and is identified as a danger to the public, the crew will allow the flow to enter the storm drain or catch basin. The crew will make every reasonable attempt to dam up the spill in the storm drain or catch basin and recover it from that point.

REPORTING AND NOTIFICATION

Reporting and notification will be given to the proper authorities per the Environmental and Regulatory Compliance Division's SSORP by the IOC. The District's ERC Division will be responsible for all reporting to local and state regulatory agencies.

During working hours, reporting and notification will be made by the IOC by contacting ERC. In addition, the Community Involvement Division will be contacted regardless of the size of the SSO.
After hours, the person in charge of the stand-by crew will notify the IOC that there has been a SSO. The IOC will then contact the Administrator on call, on-duty personnel for the Community Involvement Division and the on-duty personnel for ERC.

The Wastewater Collections Division staff will be responsible for submitting a Daily Shift report, SSO Field report and any photographs taken to the Wastewater Collections Supervisor or Manager by the beginning of the next shift. This information will be supplied to ERC as soon as possible. A copy of all items related to the SSO will be kept on file with the Collection System Supervisor for two calendar years.

POSTING PROCEDURES

1. Public health and safety is of great concern to this Division and the District. We will do everything reasonable to ensure that areas of contamination are posted to warn the public of the potential hazards.

2. Posting locations of contamination will be done in all cases where the ground is still wet or pooled water is present and accessible by the public.

3. Signs will be placed in locations with high visibility so that they can be seen from all routes that the public might take to enter an area.

4. Signs will remain posted for a period of not less than five days unless directed by the Department of Environmental Health. Laboratory tests may be conducted to indicate appropriate site remediation has taken place.

RESTORATION PROCEDURES

We will make every effort to restore the environment to the condition that existed before the SSO occurred by using the following procedures:

1. If the SSO occurred in the street, we will apply bleach to the affected area, wash down and recover wash water or use a street sweeper to clean the asphalt.

2. Collect and dispose of any standing or pooled sewage that is accessible to the public.

3. Recover any sewage possible within storm drains/channels, curb, gutters, and culverts.

4. Clear surrounding area of paper, solids, and any other signs of a SSO.

5. We will replace vegetation, sidewalks, asphalt, fencing or any other items that were damaged as a result of the SSO or damage caused by the crews working to restore service.
6. In the event a building is flooded, the IOC will be directed to contact EMWD's Safety, Risk and Emergency Management Department. They will advise District crews as how to proceed with cleanup.
1. Purpose

1.1 To provide clear and complete guidelines and instructions for implementing procedures in response to any equipment or process breakdown, which results in a sewer spill condition at a lift station.

1.2 Definition of SSO: Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system upstream of a treatment plant head-works. SSOs include:

1.2.1 Overflows or releases of untreated or partially treated wastewater that reach surface waters of the state. This includes all wastewater releases to storm drain pipes that are tributary to waters of the state that are not fully recovered.

1.2.2 Overflows or releases of untreated or partially treated wastewater that do not reach surface waters of the state.

1.2.3 Wastewater backups into buildings and on private properties that are caused by blockages or flow conditions within the Enrollee owned portion of a sanitary sewer.

2. Authority

2.1 General Manager

2.2 Deputy General Manager of Operations and Administration

2.3 Director of Maintenance

3. Policy

3.1 It is the policy of the District to comply with all applicable environmental regulations requiring that any incident of equipment or process breakdown that may result in a sanitary sewer overflow, shall be reported to Environmental Regulatory Compliance (ERC) Department immediately. Additionally the District will implement corrective actions to prevent future occurrences of sanitary sewer overflows. This SOP applies to all District employees and contractors tasked with operating or maintaining any equipment or process within the District.
3.2 This Standard Operating Procedure will be in conjunction with the Collections Department Sanitary Sewer Overflow Prevention and Response Plan SSOPRP.


4.1 State of California Department of Health Services - California Health and Safety Code - Section 5411.5.

4.2 State of California Regional Water Quality Control Boards - California Water Code - Section 13271 and 2250, and Order No. 96-04 (for the San Diego Region only).


4.4 California State Water Resources Control Board.

5. Procedures

Anytime a breakdown of any equipment or process failure occurs which will result in a spill, District staff shall follow these procedures:

5.1 Response

5.1.1 Mechanic shall respond to emergency without delay, upon notification of potential problem.

5.1.2 Mechanic shall assess the problem and may request additional assistance from: Mechanical Services, Collections Department, or a Contracted Septage Pumper, to control the incident (provide additional pumping, vactor service, provide damming around spill, diverting flow, etc).

5.1.3 Mechanic shall notify Integrated Operations Center (ICC), Supervisor or Manager, of the condition as soon as possible. Refer to Section 5.5.1 Reporting and Notification for further clarification.

5.1.4 Mechanic shall make the necessary repairs to remediate cause of equipment or process failure.

5.2 Posting

5.2.1 Posting of warning signs will be performed by the Collections Department in accordance with the SSOPRP.

Revised 09/2017
5.3 Restoration

5.3.1 The Mechanical & Collections Department will make every attempt to restore the site as outlined within the SSOPRP.

5.4 Documentation

5.4.1 Mechanic shall initiate and assist with any or all of the documentation of events as they unfold. Documentation shall include the following information:

A. Beginning and Ending time.
B. Location
C. Conditions causing problem.
D. Did spill reach surface waters or storm drain?
E. Estimated volume of spill.
F. Estimated volume of spill recovered.
G. Damage to structures or other facilities.
H. Recommended follow-up.
I. Photographs of the overflow structure and effected area(s).

5.5 Reporting and Notification

5.5.1 Employees are directed to contact the IOC regarding the spill. IOC shall immediately notify Environmental Regulatory Compliance (ERC) Department, and Regulating Agencies as directed.

6. References

6.1 Order No. 2006-0003-DWQ. Please see section 1.2 for definition of an SSO.

6.2 Sanitary Sewer Overflow Prevention and Response Plan (SSOPRP).

6.3 California Regional Water Quality Control Board - Sanitary Sewer Overflow Report.

6.4 E.M.W.D.’s Sanitary Sewer Overflow Report.

J: SWRRESP

Revised 09/2017
EASTERN MUNICIPAL WATER DISTRICT

Lift Station Emergency Response Plan

Cottonwood Lift Station

2864 W. Cottonwood Ave, San Jacinto CA 92582

PREPARED BY SEWER LIFT STATION DIVISION
EMERGENCY CONTACT LIST

IOC – (951) 928-3777 ext. 6265

Jesse Soto
Sewer Lift Stations Supervisor
(951) 928-3777 ext. 6332

Dave Brown
Mechanical Services Manager
(951) 928-3777 ext. 6269

Tony Hughes
Director of Maintenance
(951) 928-3777 ext. 6298
EMERGENCY CONTRACTORS

**PUMP AND PIPE RENTAL:**

**XYLEM DEWATERING SOLUTIONS**
Contact: Jim Rufing  
Phone: (951) 681-3636  
Cell: (562) 572-4738  
[james.rufing@xyleminc.com](mailto:james.rufing@xyleminc.com)

**RAIN FOR RENT**
Contact: Jeremy Mattson  
Phone: (909) 332-0316  
Phone 24 Hours: (951) 653-2171

**PUMPER TRUCKS:**

**WRIGHT SEPTIC**
Phone: (951) 654-4840 (24 hours)

**ROTO ROOTER**
Phone: (909) 658-8541  
Phone: 24 Hours: (800) 491-7686

**WHITE HOUSE SANITATION**
Phone: (951) 674-6565

**CRANE SERVICES:**

**HILL CRANE SERVICES INC.**

3333 Cherry Ave Long Beach, CA 90807; 2675 S. Willow Ave. Bloomington, CA 92316

Contact: Steve Wilkerson, Project Manager  
Phone: (909) 820-9886  
[steve.wilderson@hillcraneservices.com](mailto:steve.wilderson@hillcraneservices.com)

Contact: Will Alexander  
Phone: (909) 820-9886  
Direct: (909) 347-0026  
[will.alexander@hillcraneservices.com](mailto:will.alexander@hillcraneservices.com)
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6.3 California Regional Water Quality Control Board - Sanitary Sewer Overflow Report.

6.4 E.M.W.D.’s Sanitary Sewer Overflow Report.

J: SWRRESP

Revised 09/2017
## SEWER FACILITY PROFILE

<table>
<thead>
<tr>
<th>DATE: 8/28/2018</th>
<th>PUMP#</th>
<th>HP</th>
<th>ELEC/GAS</th>
<th>GPM</th>
<th>CMMS#</th>
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<tbody>
<tr>
<td></td>
<td>1</td>
<td>50</td>
<td>ELEC</td>
<td>850</td>
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<tr>
<td>FACILITY:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L3135 COTTONWOOD LIFT</td>
<td>2</td>
<td>50</td>
<td>ELEC</td>
<td>850</td>
<td>N/A</td>
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<tr>
<td>STREET ADDRESS:</td>
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<tr>
<td>2864 W. COTTONWOOD AVE, SAN JACINTO</td>
<td>3</td>
<td></td>
<td>ELEC</td>
<td></td>
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<tr>
<td>FAIRBANKS MORSE 80 FT TDH</td>
<td>4</td>
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<td>ELEC</td>
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<td></td>
<td>5</td>
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<td>ELEC</td>
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<td>6</td>
<td></td>
<td>ELEC</td>
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</table>

**GENERATOR – HP 382 kW 250**

**PORTABLE GENERATOR # 813-814 CABLE SIZE**

**LOCATION # OMC**

**THIS LOCATION PUMPS TO: L3132 SANDERSON LIFT.**

**LOCATION/FACILITY**

**SPILL POINT LOCATION:** THE INLET MANHOLES LOCATED ON COTTONWOOD AVE ARE THE FIRST SPILL POINTS.

**DECANT LOCATION:** DECANZ POINT WILL BE THE SEPTAGE PIT LOCATED AT SANDERSON LIFT.

**LOCATIONS THAT FLOW INTO THIS LIFT STATION:** Local business and residential services gravity into lift.

<table>
<thead>
<tr>
<th>IN/FT</th>
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<tbody>
<tr>
<td>FLOAT HIGH ALARM: 80 IN</td>
<td></td>
</tr>
<tr>
<td>PLC HIGH ALARM: 80 IN</td>
<td></td>
</tr>
<tr>
<td>LEAD PUMP ON AT: 65 IN</td>
<td>OFF AT: 35 IN</td>
</tr>
<tr>
<td>LAG PUMP ON AT: 70 IN</td>
<td>OFF AT: 50 IN</td>
</tr>
<tr>
<td>SECOND LAG ON AT: IN</td>
<td>OFF AT: IN</td>
</tr>
<tr>
<td>THIRD LAG ON AT: IN</td>
<td>OFF AT: IN</td>
</tr>
</tbody>
</table>
THIS INLET MANHOLE CAN BE USED TO BYPASS LIFT BY INSTALLING A SUBMERSIBLE OR END SUCTION PUMP.
THIS SECTION OF GRAVITY LINE WITH ITS MANHOLES WOULD BE THE LOWEST/SPILL POINTS
Decant point will be the septage pit located at Sanderson Lift Station.
Heidra® 300 Hydraulic Submersible Pumps

The Heidra 300 hydraulic submersible pump is a self-contained, hydraulic-powered 12" (300 mm) submersible pump with a diesel-driven hydraulic power unit available for heavy duty municipal and industrial dewatering and solids handling pumping applications.

A variable displacement hydraulic piston pump on the power pack delivers hydraulic fluid to a fixed displacement piston motor that drives the pumpend’s shaft, bearings and cast steel impeller. Simple engine throttle adjustments allow changes to pump flow and head performance.

Features

- Cast iron pumpend with cast chromium steel impeller designed for general pumping with solids handling up to 3.75" (95 mm) in diameter.
- Capable of flow rates to 6,000 GPM (1,363.3 m³/h) and heads to 200' (61 m).
- Unique double mechanical seal immersed in isolated oil bath for unlimited dry running capability.
- Integral 200 gallon (757 l) fuel tank capacity provides over 24 hours of continuous operation.
- Safety shutdown system incorporated into engine controls prevents equipment damage from engine fault or failure.
- Standard PrimeGuard Controller provides programmable operations including setting maintenance timers.
- Integrated steel cage on pumpend protects pump while submersed, provides a lifting bale for easy transfer and provides an anchor spot for the hydraulic fittings.
- "Quick Disconnect" hydraulic fittings simplify setup, installation and shutdown.
- Standard JD6068H engine. Other models, including electric drive versions, available.
### Specifications

#### Submersible Pump

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic Motor</td>
<td>Fixed Piston</td>
</tr>
<tr>
<td>Drive Pressure</td>
<td>Up to 4500 PSI (310 BAR)</td>
</tr>
<tr>
<td>Hydraulic Flow</td>
<td>Up to 85 GPM (19.3 m³/h)</td>
</tr>
<tr>
<td>Hydraulic Line Length</td>
<td>Up to 100' (30.5 m) longer runs with larger diam. hose</td>
</tr>
<tr>
<td>Solids Handling</td>
<td>Up to 3.75' (95 mm) in diameter</td>
</tr>
<tr>
<td>Pump Speed (RPM)</td>
<td>Up to 1800 RPM</td>
</tr>
<tr>
<td>Impeller Diameter</td>
<td>14.25&quot; (362 mm)</td>
</tr>
<tr>
<td>Discharge Flange</td>
<td>12&quot; (300 mm) ASA 150</td>
</tr>
<tr>
<td>Hydraulic Connections</td>
<td>4 - 1.25&quot; (32 mm), 1 - 0.75&quot; (19 mm) quick disconnect</td>
</tr>
<tr>
<td>Strainer</td>
<td>Nylon coated with 2.75&quot; (70 mm) apertures</td>
</tr>
</tbody>
</table>

#### Power Pack

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>JD6068H water-cooled diesel 275 HP (205 kW) @ 2,000 RPM</td>
</tr>
<tr>
<td>Fuel Consumption</td>
<td>13.5 GPH (51 l/h)</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>200 gallons (757 l)</td>
</tr>
<tr>
<td>Output Hydraulic Flow</td>
<td>85 GPM (19.3 m³/h)</td>
</tr>
<tr>
<td>Output Pressure Control</td>
<td>4500 PSI (310 BAR)</td>
</tr>
<tr>
<td>Hydraulic System</td>
<td>Four pipe, closed loop hydrostatic drive</td>
</tr>
<tr>
<td>Reservoir</td>
<td>80 gallons (303 l)</td>
</tr>
<tr>
<td>Control Valve</td>
<td>Pressure compensated on/off valve</td>
</tr>
<tr>
<td>Connections</td>
<td>1.25&quot; (31.75 mm) quick disconnect feed (x2) and return (x2); 0.75&quot; (19 mm) quick disconnect case drain</td>
</tr>
<tr>
<td>Supply Line Filter</td>
<td>125 micron, pleated gauze</td>
</tr>
<tr>
<td>Return Line Filter</td>
<td>20 micron</td>
</tr>
</tbody>
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#### Materials of Construction

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
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</thead>
<tbody>
<tr>
<td>Pump-end</td>
<td>Cast iron</td>
</tr>
<tr>
<td>Impeller</td>
<td>Cast steel</td>
</tr>
<tr>
<td>Wearplates</td>
<td>25% Chromium iron front wearplate, nitride hardened cast iron rear wearplate</td>
</tr>
<tr>
<td>Mechanical Seal</td>
<td>Solid silicon carbide</td>
</tr>
</tbody>
</table>
Submersible Pump
Pumpend dry weight - 2075 lbs. (941.2 kg)

Discharge:
12" ANSI Flange
(2) 87.5 bolts 0" PCD
17" (432 mm) PCD

Skid-Mounted Power Pack
Skid-mounted, John Deere 6068H engine
Dry weight - 5200 lbs. (2358.68 kg)

Home Office:
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Email: sales@godwinpumps.com
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Specications and Illustrations are subject to revision without notice.
The Godwin Dri-Prime CD300M pump offers flow rates to 5990 USGPM and has the capability of handling solids up to 3.7" in diameter.

The CD300M is able to automatically prime to 28' of suction lift from dry. Automatic or manual starting/rewinding available through integral mounted control panel or optional wireless-remote access.

Indefinite dry-running is no problem due to the unique Godwin liquid bath mechanical seal design. Solids handling, dry-running, and portability make the CD300M the perfect choice for dewatering and bypass applications.

**Features and Benefits**

- Simple maintenance normally limited to checking fluid levels and filters.
- Dri-Prime (continuously operated Venturi air ejector priming device) requiring no periodic adjustment. Optional compressor clutch available.
- Extensive application flexibility handling sewage slurries, and liquids with solids up to 3.7" in diameter.
- Dry-running high pressure liquid bath mechanical seal with high abrasion resistant solid silicon carbide faces.
- Pedestal mounted centrifugal pump with Dri-Prime system coupled to a diesel engine or electric motor.
- All cast iron construction (stainless steel construction option available) with cast steel impeller.
- Also available in a critically silenced unit which reduces noise levels to less than 70 dBA at 30'.
- Standard engine Caterpillar C9 (T3 Flex). Also available with John Deere 6068HFC94 (IT4).  

**Specifications**

<table>
<thead>
<tr>
<th></th>
<th>12&quot; 125# ANSI B16.1</th>
<th>12&quot; 150# ANSI B16.5</th>
<th>5990 USGPM</th>
<th>3.7&quot;</th>
<th>14.3&quot;</th>
<th>176°F*</th>
<th>88 psi</th>
<th>58 psi</th>
<th>132 psi</th>
<th>1800 rpm</th>
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<tbody>
<tr>
<td><strong>Suction connection</strong></td>
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<td><strong>Delivery connection</strong></td>
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* Please contact our office for applications in excess of 176°F.

† Larger diameter pipes may be required for maximum flows.

Please contact the factory or office for further issues. A typical picture of the pump is shown. All information is approximate and for general guidance only.
The Heidra 200 hydraulic submersible pump is a self-contained, diesel powered 8' (200mm) pump available for heavy duty municipal and industrial dewatering and solids handling pumping applications. The Heidra 200 offers flow rates up to 3100 gpm (703.7 M³/hr.) with up to 180' (54.9M) of total dynamic head and solids handling capability of 3-1/8" (79mm) in diameter. The unit consists of a sturdy cast iron submersible pumpend and hydraulic power pack mounted on a rugged steel skid. A variable displacement hydraulic piston pump on the power pack delivers hydraulic fluid to a fixed displacement piston motor that drives the pumpend's shaft, bearings, and cast steel impeller. Simple engine throttle adjustments allow changes to pump flow and head performance.

Features

- Rugged construction of cast iron pumpend with cast chromium steel impeller.
- Flow rates to 3100 gpm (703.7 M³/hr.) and heads to 180 feet (54.9M).
- Unique double mechanical seal immersed in isolated oil bath for unlimited dry running capability.
- Integral 175 gallon (662 liter) fuel tank capacity provides over 24 hours of continuous operation.
- Safety shutdown system incorporated into engine controls prevents equipment damage from engine fault or failure.
- Impeller designed for general pumping with solids up to 3-1/8" (79mm) in diameter.
- “Quick-Disconnect” hydraulic fittings simplify setup, installation, and shutdown.
- Standard John Deere 6068T or Caterpillar 3116TA engine. Also available with other diesel engines or electric drive motor.
Heidra® 200 Performance Curve

Specifications

Submersible Pump:
- Hydraulic Motor: Fixed Piston
- Drive Pressure: Up to 4000 psi (276 BAR)
- Hydraulic Flow: Up to 57 gpm (3.6 l/sec.)
- Hydraulic Line Length: 100 feet / 30.5M
- (longer runs with larger hose)
- Solids Handling: Up to 3-1/8" (79mm) diameter
- Pump Speed: Up to 2200 rpm
- Impeller Diameter: 11-3/8" (290mm)
- Discharge Flange: 8" (200mm) ASA 150
- Hydraulic Connections: 1-1/4" (32mm)
- Quick Disconnect
- Strainer: Nylon coated with 2-3/4" (70mm) apertures

Power Pack:
- John Deere 6068T Engine
  - Horsepower: 147 hp (110 kw) @ 2200 rpm
  - Fuel Consumption: 7.2 gph (27 lph)
- Caterpillar 3116TA Engine
  - Horsepower: 143 hp (107 kw) @ 2200 rpm
  - Fuel Consumption: 7.6 gph (29 lph)
- Fuel Tank Capacity: 175 gallons (652 liters)

Output
- Hydraulic Flow: 57 gpm (3.7 l/sec.)
- Pressure: 4000 psi (276 BAR)
- Control: From engine speed and pressure compensated

Hydraulic System:
- Two pipe, open circuit
- Reservoir: 80 gallon (303 liters)
- Control Valve: Pressure compensated on/off valve
- Connections: 1-1/4" (32mm) Quick Disconnect feed and return
- 1/2" (13mm) Quick Disconnect case drain
- Supply Line: 125 micron, pleated gauze
- Return Line: 20 micron

Dimensions

Heidra 200 — shown with John Deere 6068T, Skid Base
- Pump Weight: 780 lbs. (354 kg.)

Complete pumpset is supplied with one each of 1-1/4" x 50' (32mm x 15.25M) high pressure feed and return hoses and one 1/2" x 50' (13mm x 15.25M) low pressure case drain hose.