San Sevaine Basin
Midge Fly Remediation & Operations

- Dec. 2-3, 2014: Heavy Rain Retained in Basin
- Dec. 12, 2014: Heavy Rain Retained in Basin
- Dec. 17, 2014: Rain Retained in Basin
- Jan. 11, 2015: Rain Retained in Basin
- Jan. 20, 2015: Basin Drained to RP-3
- Jan. 26, 2015: Rain Retained in Basin
- Feb. 4, 2015: Basin Drained to RP-3
- Feb. 22, 2015: Rain Retained in Basin
- Mar. 3-8, 2015: Basin Drained to RP-3
Immediate Remedy
- Recycled water delivery is suspended until short-term solution(s) can be assessed.
- Storm water is held briefly and then released to downstream basin(s).
- Water-vehicle with sprayer is in operation.

Short-Term: Provide Increased Access for Vector Control Treatment
- Modify spill structure for vehicle access (completed).

Long-Term: Provide Operational Flexibility
- San Sevaine Improvements Project
- Build a lateral berm to keep water deeper.
- Build a longitudinal berm to allow central access for spraying.
- Build lateral and longitudinal berms to allow cycling of operations and drying non-operating cells.
San Sevaine Basin Infiltration Rates
December 2014

Basin 1: 0.62 ft/day
Basin 2: 0.74 ft/day
Basin 3: 1.36 ft/day
Basin 5: 0.15 ft/day
San Sevaine Basin Improvements Project

Proposed Improvements:
- Extension of the existing 36" recycled water line with a proposed 30" recycled water line to provide flow into Basins 1, 2, and 3.
- Proposed Pump Station will be located in Basin 5 to pump collected stormwater into Basins 1, 2, and 3 to improve overall water collection and recharge capacity.
- Turnouts will be placed at Basins 1, 2, and 3.
- Lysimeters and monitoring wells will need to be placed around Basins 1, 2, and 3 to determine groundwater movement, recycled water contribution, and the soil aquifer treatment effectiveness.
- Consultant shall provide alternative material selection for piping, coating, pumps, or any other applicable item.
- Location of structures are subject to change based on Consultant's Design.

Basin Improvements:
- Pump Basin 5 water to upper basins
  - Install pump station in Basin 5
  - Build conveyance piping to upper basins

Project Benefits:
- Increase stormwater recharge to 642 acre-feet per year
- Increase operational flexibility in maintaining basin
San Sevaine Basins 1-3
Demonstrated Capacity
Midge Fly Control Testing
Hickory Basin

- SolarBee mixer to be placed into Hickory Basin.
- Mixer will impart dissolved oxygen to maintain fresh water quality.
- Goal is to eliminate environment for larva growth.
- Begin testing May 2015.
Midge Fly Control Testing
Hickory Basin

- Covering standing bodies of water with spray or mist prevents midge fly from laying eggs.
- Operational success at MWD facilities.
- Water cannon tested at Turner Basin 1 September – December 2014.
- Reviewing expanded test at Hickory Basin.
Aquatic All-terrain Vehicle
Next Steps

- Recycled water delivery will continue to be suspended.
- Stormwater may be held in Basin 5 temporarily but will be released to downstream basins.
- All-terrain vehicle will continue to be utilized to support operations.
- Review applicability of spray system testing at Hickory Basin: June 2015
- San Sevaine Improvements Project Construction: Summer 2016
Midge Fly updates and information can be found on the Inland Empire Utilities Agency’s website under News/Public Notice.
IEUA Website:  www.ieua.org

Jason Marseilles  909-993-1823  jmareseilles@ieua.org
Senior Associate Engineer
Kathy Besser  909-993-1638  kbesser@ieua.org
Manager of External Affairs