4-BAND AERIAL & SATELLITE IMAGERY COLLECTIONS OF THE 2019 MIDDLE RIO GRANDE HIGH FLOW RUNOFF: SUPPORTING DATA FOR ESA RESEARCH & PLANNING

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4-Band Aerial & Satellite Imagery Collections of the 2019 Middle Rio Grande High Flow Runoff







- Collection Area of Interest (AOI): Cochiti Lake to Elephant Butte Reservoir (Approximately 175 miles).
- Four (4) 4-band (RGB & CIR), 50cm Satellite collections of the Middle Rio Grande were conducted using the AirBus Pleades Satellite during the transpiring hydrograph between April 19 & June 15, 2019.
- One (1) 4-Band (RGB & CIR), Ortho-Photo 6in. Aerial Survey set was collected at the peak of the runoff for the same AOI on June 14 &15, 2019.
- Satellite Imagery was also provided as WMS Services & Final 4-Band Digital Sets

Data Uses:

Habitat Monitoring & Mapping

Restoration Project Planning

Inundation Mapping

Sedimentation Assessments

Levee Monitoring



April – June 2019 Middle Rio Grande Hydrographs (Central & Bosque Farms Gauges)



Satellite Collection Dates verses MRG Gauge Flow



Albuquerque Central Gauge



Bosque Farms Gauge



Metadata Sets for 2019, 4-Band Satellite Imagery Collection Sets



April 19 & 25









June 14





Sample MRG Areas of Interest





MRG Restoration Site # 1A

Los Lunas, North of Highway
6 Main Street Bridge



Los Lunas, North of Main Street Rio Grande Bridge



ESRI Basemap Normal Low Flow ~ 150 cfs



Satellite Collect April 19 Flow ~ 1,400 cfs





Los Lunas North of Main Street Rio Grande Bridge



Satellite Collect May12 Flow ~ 4,500 cfs



Satellite Collect May 31 Flow ~ 3,000 cfs





Los Lunas North of Main Street Rio Grande Bridge



Satellite Collect June 15 Flow ~ 4,700 cfs



Aerial Collect June 15 Flow ~ 4,700 cfs





Los Lunas, North of Highway 6 Bridge: 2019 4-Band Aerial Ortho-Imagery

Los Lunas 2018 Low Flow Ortho of Historic Problem Area



June 15, 2019 Aerial Imagery of High Flow Floodplain Inundation RGB Natural Color



June 15, 2019 Aerial Imagery of High Flow Floodplain Inundation Color IR Enhanced





Restoration Site # 1A South of Romero Road, 2019 4-Band 6in. Aerial Ortho-Imagery



Restoration Site # 1A 2018 Low Flow Ortho of Historic Problem Area



June 15, 2019 Aerial Imagery of High Flow Floodplain Inundation RGB Natural Color



June 15, 2019 Aerial Imagery of High Flow Floodplain Inundation Color IR Enhanced





Restoration Site #1A South of Romero Road, 1962 & 2019 Aerial Ortho-Imagery

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Restoration Site # 1A Area 1962 Pre-Cochiti Dam Ortho-Photography



June 15, 2019 Aerial Imagery of High Flow Floodplain Inundation RGB Natural Color



June 15, 2019 Aerial Imagery of High Flow Floodplain Inundation Color IR Enhanced



Other Data Sets Available For ESA Program's Use

Igentication 1962 Pre-Cochiti Dam Structure From Motion Derived Imagery & DSM Point Cloud DSM

2017 MRG 550 Bridge to Isleta Pueblo LiDAR & 4-Band 3in. Ortho-Imagery

2018 MRCOG Leaf Off 6in. Ortho-Imagery

Questions?

For more information and/or copies of these sets, please Contact: John Peterson at:

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