



LEE'S SUMMIT

M I S S O U R I

Additional Detail of Potential Tasks and Activities Associated Level of Service (LOS) for Various Scenarios:

Level of Service 1:

Public Works Operations :

- Reduce reactive work, repair known problem areas before they fail
 - Ex: Replace hooded grate and/or undersized grate inlets in older development areas to reduce clogging and localized flooding .
- Construct small projects, piping failure replacements < \$75,000
- Implement a program to inspect all structures on a 36 month rotation
- Decrease our typical response time from 60 to 30 days for work orders associated with stormwater drainage system failures
- Train operations staff to look for and recognize illicit discharges and potential infrastructure failures before they occur so that we can be proactive in solving them.
- Expand training opportunities in stormwater, green infrastructure, and stream mechanics

Public Works Engineering:

- 2017 NPDES permit partial implementation
- Start field inspection for Illicit Discharge Detection and Elimination, IDDE requirements
- Educate staff and public thru formal & informal training
 - a. Web page updates and expansions
- Act as a resource for COLS staff and public concerning water resource/ environmental issues
- Meet with citizens and HOA groups
- Develop resources to assist public understanding of environmental issues
- Assist COLS with environmental permit applications and applicable requirements
- Implement and/or assist with "green" initiatives
- Evaluate / update ordinances
- New FEMA FIRM map implementation
- Development review on complex and/or water resources projects
- Develop Fact Sheets for various environmental/ water resource issues
- Develop program for repairs found as a result of structure inspections
- Expand training opportunities in stormwater, green infrastructure , and stream mechanics



Level of Service 2:

LOS 1 plus:

Public Works Operations :

- Replace failing infrastructure on mid size projects < \$150,000
 - Replace 60-80 feet of pipe at a time: stop replacement when solid pipe is found.
- Stormwater crews to install silt saver walls to reduce maintenance in multiple cell culverts so that the potential for silt deposition is minimized in the boxes and the infrastructure capacity is maintained.
- Clean and TV our storm drain system w/o contractors
- Dry weather inspections of storm drainage system per IDDE requirements looking for discharges not generated by stormwater runoff.

Public Works Engineering:

- Pursue Community Rating System CRS status to lower flood insurance premiums for policy holders within our corporate limits
- Stormwater Management Program and written plan, SWMP development as required in NPDES permit
- Create a staff (all departments) education program on environmental/stormwater issues and illicit discharge detection per NPDES permit requirement
- Coordinate public involvement per environmental/stormwater issues per NPDES permit requirement
- Evaluate MARC/APWA BMP manual for use in city all or part of the manual
- Establish a priority ranking system: replace/repair/ delay for Storm drain infrastructure.



Level of Service 3:

LOS 2 plus:

Public Works Operations :

- Replace failing infrastructure on large projects < \$600,000
 - Stormwater crews to replace failed reaches (200-300 feet) not just individual pipe sections (20 feet) individually
- Crews install and/or maintain water quality BMPs thru Green infrastructure elements:
 - Constructed wetlands/ gross solids collection/ native plantings/ stream bank buffers, etc.
- Crews pull water samples to establish background water quality parameters

Public Works Engineering:

- Run dam break analyses and develop evacuation maps for reservoirs which potentially impact our residents, APWA accreditation
- Develop a hazard mitigation plan for FEMA per obtaining federal funding, we are now covered under a MARC plan
- Additional staff trained in fluvial geomorphology (river mechanics) concepts
- Stream restoration projects to protect public infrastructure all over town,
 - Engineering staff obtain knowledge to design solutions and train our operations staff to do the restoration work.
- Complete inventory and database of private ponds, create inspection program for same.
- Revise D&C manual, stagger inverts on parallel culverts, encourage designers to evaluate sediment transport thru the proposed system, so we don't have plugged pipes, etc, things that do not repeat the mistakes of the past.
- Stormwater investigations and studies retrofit non-functioning infrastructure, etc
- Update Flood models in COLS considering current and ultimate build out conditions
- How would PRI development impact our current/ future infrastructure?
- Design of small CIP projects in-house,
 - Piping replacements/ green infrastructure/gross solids traps



Level of Service 4:

LOS 3 plus:

Public Works Operations :

- Replace and/or re-line failing storm drain piping.
- Crews trained in stream mechanics to construct stream armoring measures which protect structures and minimize future maintenance.

Public Works Engineering:

- Act as program managers for Capital Improvement Program for storm drainage repairs.
- Establish a schedule to replace/re-line failing storm drain piping.
- Evaluate retrofit of existing Stormwater detention ponds to water quality BMPs
- Staff to pursue environmental training, i.e. LEED certification.

