

System	HCP #	Species	Trigger	Frequency	Action @ Trigger	Included in Contract
Comal Springs	6.4.3.1	Fountain Darter	150 - 80 cfs	Every other month	Aquatic vegetation mapping at Upper Spring Run reach, Landa Lake, Old Channel reach, and New Channel reach	Bio-Monitoring Contract (BIO-WEST)
Comal Springs	6.4.3.1	Fountain Darter	150 - 80 cfs	Every other month	Dip net sampling/visual parasite evaluations at Upper Spring Run reach (5), Landa Lake (20), Old Channel reach (20), and New Channel reach (5)	Bio-Monitoring Contract (BIO-WEST)
Comal Springs	6.4.3.1	Fountain Darter	≤60 cfs	Monthly	Aquatic vegetation mapping at Upper Spring Run reach, Landa Lake, Old Channel reach, and New Channel reach	Bio-Monitoring Contract (BIO-WEST)
Comal Springs	6.4.3.1	Fountain Darter	≤60 cfs	Weekly	Dip net sampling/visual parasite evaluations at Upper Spring Run reach (5), Landa Lake (20), Old Channel reach (20), and New Channel reach (5)	Bio-Monitoring Contract (BIO-WEST)
Comal Springs	6.4.3.1	Fountain Darter	<50% mean aquatic vegetation (Landa Lake and Old Channel) and <20% darter presence system-wide; or <25% mean aquatic vegetation (Landa Lake and Old Channel) and <30% darter presence system-wide	Ongoing	Off-site refugia	

Comal Springs	6.4.3.2	Comal Springs Riffle Beetle	≤ 120 cfs	Every 2 weeks	Monitoring via cotton lures at Spring Run 3, western shore of Landa Lake, and Spring Island upwelling	Bio-Monitoring Contract (BIO-WEST)
Comal Springs	6.4.3.2	Comal Springs Riffle Beetle	<30 cfs when only one of the three sites continues to have six or more adult beetles collected in a 24 hour sampling period using cotton lures	Ongoing	Off-site refugia	
Comal Springs	6.4.3.3	Comal Springs Dryopid Beetle/Peck's Cave Amphipod/Edwards Aquifer Diving Beetle	<30 cfs	weekly	Monitoring for standard water quality parameters (dissolved oxygen, conductivity, pH, and temperature) will be conducted at a network of three wells located within the immediate vicinity of Comal Springs	Not included in an existing contract
Comal Springs	6.4.3.3	Comal Springs Dryopid Beetle/Peck's Cave Amphipod/Edwards Aquifer Diving Beetle	≤ 20 cfs	weekly	Standard water quality parameters and conventional water quality parameters (nutrients, TDS, and TOC) at the same network of three wells used in standard water quality monitoring	Not included in an existing contract

Comal Springs	6.4.3.3	Comal Springs Dryopid Beetle/Peck's Cave Amphipod/Edwards Aquifer Diving Beetle	Any standard or conventional water quality parameter exceeds the historical range of the water quality parameter for the Edwards Aquifer by 10% or more	Ongoing	Off-site refugia	
Comal Springs	6.4.3.4	Comal Springs Salamander	≤120 cfs until 80 cfs	every other week	Salamander snorkel surveys will be conducted at three sites (Spring Runs 1 and 3 and the Spring Island area)	Bio-Monitoring Contract (BIO-WEST)
Comal Springs	6.4.3.4	Comal Springs Salamander	<80 cfs	weekly	Salamander snorkel surveys will be conducted at three sites (Spring Runs 1 and 3 and the Spring Island area)	Bio-Monitoring Contract (BIO-WEST)
Comal Springs	6.4.3.4	Comal Springs Salamander	Less than 50% suitable habitat (at Spring Runs 1 and 3 and the Spring Island area), and less than 20% salamander density, OR Less than 25% suitable habitat (at Spring Runs 1 and 3 and the Spring Island area), and less than 30% salamander density	ongoing	Off-site refugia	
San Marcos Springs	6.4.4.1	Fountain Darter	≤80 cfs, until 50 cfs, and continuing until cfs restores to 100 cfs	every other month	Aquatic vegetation mapping at Spring Lake Dam reach, City Park reach, and IH-35 reach	Bio-Monitoring Contract (BIO-WEST)

San Marcos Springs	6.4.4.1	Fountain Darter	≤ 80 cfs or below, until 50 cfs, and continuing until cfs restores to 100 cfs	every other month	Dip net sampling/visual parasite evaluations at Spring Lake (20), Spring Lake Dam reach (10), City Park reach (10) and IH-35 reach (10)	Bio-Monitoring Contract (BIO-WEST)
San Marcos Springs	6.4.4.1	Fountain Darter	Less than 50% mean aquatic vegetation at Spring Lake Dam, City Park reach, IH-35 reach, and Spring Lake and less than 30% darter abundance, OR less than 25% mean aquatic vegetation at Spring Lake, Spring Lake Dam, City Park reach, and IH-35 reach and less than 30% darter abundance	ongoing	Off-site refugia	
San Marcos Springs	6.4.4.2	San Marcos Salamander	≤ 80 cfs	every other week	Salamander surveys (SCUBA and snorkel) will be conducted at the Hotel Area, Riverbed area, and eastern spillway of Spring Lake dam	Bio-Monitoring Contract (BIO-WEST)
San Marcos Springs	6.4.4.2	San Marcos salamander	≤ 50 cfs	weekly	Salamander surveys (SCUBA and snorkel) will be conducted at the Hotel Area, Riverbed area, and eastern spillway of Spring Lake dam	Bio-Monitoring Contract (BIO-WEST)

San Marcos Springs	6.4.4.2	San Marcos salamander	<50% suitable habitat at the Hotel area, riverbed area, and eastern spillway of Spring Lake dam and <20% salamander density, OR <25% suitable habitat at the Hotel area, riverbed area, and eastern spillway of Spring Lake dam and <30% salamander density	ongoing	Off-site refugia	
San Marcos Springs	6.4.4.3	Texas blind salamander and Texas troglobitic water slater	<50 cfs	weekly	Monitoring for standard water quality parameters (dissolved oxygen, conductivity, pH, and temperature) will be conducted at a network of three wells located within the immediate vicinity of San Marcos Springs	Not included in an existing contract
San Marcos Springs	6.4.4.3	Texas blind salamander and Texas troglobitic water slater	<30 cfs	weekly	Standard water quality parameters and conventional water quality parameters (nutrients, TDS, and TOC) at the same network of three wells used in standard water quality monitoring	Not included in an existing contract
San Marcos Springs	6.4.4.3	Texas blind salamander and Texas troglobitic water slater	Any standard or conventional water quality parameter exceeds the historical range of the water quality for the Edwards Aquifer by 10 percent or more	ongoing	off-site refugia	

San Marcos Springs	6.4.4.4	Texas wild-Rice	100 cfs	one-time	Mapping of Texas wild-rice coverage for the entire San Marcos River will be conducted	Bio-Monitoring Contract (BIO-WEST)
San Marcos Springs	6.4.4.4	Texas wild-Rice	100 cfs to 60 cfs	every other week	physical parameters of Texas wild-rice will be monitored in designated "vulnerable" areas (designation included in the Variable Flow Study)	Bio-Monitoring Contract (BIO-WEST)
San Marcos Springs	6.4.4.4	Texas wild-Rice	< 80 cfs	monthly	Texas wild-rice will be mapped monthly	Bio-Monitoring Contract (BIO-WEST)
San Marcos Springs	6.4.4.4	Texas wild-Rice	<80 cfs	weekly	physical visual observations of Texas wild-rice will occur	Bio-Monitoring Contract (BIO-WEST)
San Marcos Springs	6.4.4.4	Texas wild-Rice	<3,500 meters-squared total coverage in the San Marcos river, OR Texas wild-rice stands exist at fewer than three distinct sections as described by the Variable Flow Study seven sections	ongoing	Off-site refugia	