

**MONTANA DEPARTMENT OF ENVIRONMENTAL
QUALITY**

**NUTRIENT-REDUCING WASTEWATER TREATMENT SYSTEM
DESIGNATION FORM**

DATE: November 9, 2006

APPLICATION SUBMITTAL DATE(S): June 29, 2006; August 22, 2006; October 13, 2006

SYSTEM MANUFACTURER: Bio-Microbics, Inc.

SYSTEM NAME(S): Micro-FAST (variable sizes with design flow from 500 to 9,000 gpd); Retro-FAST (sized for 250 or 375 gpd)

DESIGNATED TREATMENT LEVEL¹: Level 2 (Can use 24 mg/L for effluent nitrate (as N) concentration in nitrate sensitivity analysis)

CONDITIONS:

- A. Approval for Micro-FAST system is for those systems with or without additional treatment provided by the Nitri-FAST insert.
- B. To achieve adequate nitrogen removal to meet level 2 requirements, the blower must be run continuously on all FAST systems.
- C. Due to start-up time lag associated with all biologically mediated nutrient reduction systems (for example, recirculating sand filters) "FAST" systems may not be suitable for commercial-type systems (for example, campgrounds, RV parks, etc) that are designed to be used seasonally. The applicability of Micro-FAST and Retro-FAST systems for nutrient reduction purposes at seasonal commercial-type systems should be based on a case-by-case analysis.
- D. Approval is only for Micro-FAST and Retro-FAST systems that are dosed or pressure dosed from a separate dose tank to the final discharge location (as shown in schematics submitted 10/13/06). Systems that siphon or gravity feed to the discharge location are not included in this designation because they do not include a physical barrier to discharge under hydraulic failure as required in ARM 17.30.718(9).
- E. Approval is valid for residential and non-residential facilities (with residential strength wastewater), with no limit on design flows as long as all other applicable laws, rules and design circulars are met.

APPROVED BY: Eric Regensburger

NOTES:

1 The definitions of level 1a, level 1b, and level 2 are in ARM 17.30.702(9), (10) and (11), respectively.