Larval recruitment fuels the resilience and replenishment of reef ecosystems. We investigated coral recruitment at degraded sites with anthropogenic iron inputs and benthic cyanobacterial blooms on Midway Atoll (Northwestern Hawaiian Islands), where subtidal dump sites of metal debris provide concentrated sources of iron and other metals normally absent in carbonate reef systems. Iron is a scarce or limiting nutrient on many Pacific atolls, and excess iron, often from shipwrecks or groundings, may be a pollutant leading to blooms of harmful cyanobacteria. Benthic cyanobacteria often contain toxic compounds known to negatively impact marine life and inhibit coral recruitment on some reefs. At several degraded Midway sites, benthic cyanobacterial blooms, primarily *Hormothamnion enteromorphoides*, occur periodically, cover >50% of the substrate, and grow over live corals. We tested the hypothesis that cyanobacterial blooms inhibit coral recruitment by measuring recruitment rates at two bloom sites, two nearby control sites, and two distant control sites, with 10 pairs of ceramic tiles deployed for 13 months at each site. Contrary to expectations, coral recruitment was significantly higher at bloom sites than at control sites, indicating that *Hormothamnion* does not negatively impact coral recruitment on Midway Atoll. This unexpected result complicates our understanding of cyanobacterial impacts, with implications for management of metal debris on reefs.