

State of Rhode Island Coastal Resources Management Council

In Re: T.F. Green Airport Improvement Program - Coastal Zone Management Federal Consistency Review; CRMC File 2012-01-027

Response to Comments

2	Introduction
3	
4	The Rhode Island Airport Corporation (RIAC) has proposed the T.F. Green Airport Improvement
5	Program project located within the City of Warwick and described in the Final Environmental Impact
6	Statement (FEIS) issued by the Federal Aviation Administration (FAA) in July 2011. The FAA issued
7	a Record of Decision (ROD) on September 23, 2011 based upon the FEIS and all relevant
8	documentation comprising the Environmental Impact Statement record. Based upon its review the
9	FAA selected Alternative B4 as the preferred Airport Improvement Program project (hereafter referred
10	to as the Project). After filing a federal Section 404 permit application with the U.S. Army Corps of
11	Engineers (USACE) the RIAC then filed a federal consistency certification with the USACE for the
12	Project pursuant to 15 CFR Part 930 Subpart D and furnished same to the Coastal Resources
13	Management Council (CRMC). The Project is subject to CRMC Federal Consistency review authority
14	pursuant to the federal Coastal Zone Management Act (CZMA), 16 USC §§ 1451-1464, and the

15 CZMA's implementing regulations at 15 CFR Part 930 Subpart D.16

The CRMC as the State's authorized coastal zone management agency must make a determination as to whether the proposed T.F. Green Airport Improvement Program Project complies with and will be conducted in a manner consistent with the enforceable policies of the State's coastal program. The CRMC issued a public notice on January 24, 2012 that was published in the Providence Journal inviting interested parties to submit written comments no later than February 29, 2012 as to whether the Project is consistent with the enforceable policies of the Rhode Island Coastal Resources Management Program.

Management Program

1

17

18

19

20

21 22

25

26

27

- The CRMC received comments from the City of Warwick and from Richard Langseth during the public comment period. The following pages contain the CRMC responses to these written comments. In addition, several of the comments pertained to the recently issued draft RIDEM Rhode Island

 Pollution Discharge Elimination System (PIPDES) stormwater discharge permit. For convenience of
- Pollution Discharge Elimination System (RIPDES) stormwater discharge permit. For convenience of the reader the RIPDES permit and associated RIDEM Fact Sheet can be accessed at the RIDEM web

30 page at the following URL:

31 <u>http://www.dem.ri.gov/programs/benviron/water/permits/ripdes/pdfs/tfgreen.pdf</u>

Response to Comments

The following are comments submitted on behalf of the City of Warwick by Planning Director William DePasquale followed by the CRMC's response.

Comment: Based on our review, we assert that a determination of consistency offered by RIAC with the Coastal Zone Management Act citing "no significant threshold for impact" is deficient a practicable study of the specific and long term "cumulative" impacts on Greenwich Bay from a constantly growing airport landuse whose stormwater contribution has effected water quality, fish/wildlife and wetland habitat within Greenwich Bay its waters and riparian environment.

Response: An analysis of cumulative impacts was completed in accordance with the requirements of NEPA regulations at 40 CFR 1508.7 and FAA Order 5050.48, section 1007(i), as detailed within the FEIS. The findings for water resources are described in FEIS Section 5.11.6 Cumulative Impacts. CZMA federal consistency review is limited to what potential coastal resource impacts may occur from a proposed project and whether the proposed project will be conducted in a manner consistent with the approved

coastal management plan.

 In the instant matter, RIAC has applied for a federal (USACE Clean Water Act Section 404) permit to alter and fill federal jurisdictional wetlands and waterways as described in the USACE application. It is the activities associated with the federal permit that trigger CRMC federal consistency jurisdiction pursuant to 15 CFR Part 930 Subpart D. Accordingly, the CRMC must evaluate what potential impacts to the coastal resources may occur from the Project. While the Project is located within the coastal zone, it will not result in any *direct* impacts (*i.e.*, physical alterations) to any coastal resources. However, the CRMC can evaluate any potential *indirect* impacts that may result from the Project. Since a portion of the Project is located within the CRMC Greenwich Bay Special Area Management Plan (SAMP) boundary, it must conform to the goals and policies of the SAMP that are applicable to the Project.

Comment: Furthermore without enhanced stormwater retrofit of existing point discharges from

the airport into the Greenwich Bay watershed the consistency pretense forwarded is discordant with the "Greenwich Bay Special Area Management Plan", as amended, particularly "Chapter 1 entitled: Goals and Objectives", "Chapter 4 - Water Quality" and its secondary impacts on "Chapter 3 - Habitat and Environmental Assets".

Response: See response discussion below regarding outfalls and stormwater management.

Comment:

In the instant case, the FEIS relies on a wide ranging RIPDES permit essentially assuming consistency with the Greenwich Bay Special Area Management Plan. The FEIS's assessment does not suitably study, disclose and mitigate the specific short and long term impact on groundwater and surface waters of Greenwich Bay from chemicals and pollutants associated the B4 build option that will occur within the northern portion of the GBAY watershed.

CRMC Response to Comments – File # 2012-01-027

Page 2 of 9

Response:

RIDEM is the state delegated authority for the federal National Pollution Discharge Elimination System permits and establishes state water quality standards based on the federal Clean Water Act and EPA guidance. RIDEM has indicated that the RIPDES permit limitations, which RIAC must comply with, are consistent with state water quality anti-degradation policy. Accordingly, it is reasonable for the CRMC to rely upon the RIDEM issued RIPDES permit as probative evidence that the Project and RIAC will be in compliance with state water quality standards. In addition, proposed subsurface stormwater treatment systems will be subject to a RIDEM Underground Injection Control (UIC) permit and must also comply with state water quality standards. Moreover, the ROD states that "[t]he Project design includes avoidance and minimization efforts to prevent any risks to water quality. The Project will be designed to comply with all applicable federal and state regulatory standards, including 2010 RIDEM Water Quality Regulations and the *Rhode Island Stormwater Design and Installation Standards Manual* adopted in December 2010." See ROD at 51.

Comment:

As an example the new consent agreement prepared by and between RIAC and RIDEM allows a certain threshold of deicing material dispensed within the cargo and terminal areas to enter the waters either directly or to the Greenwich Bay watershed entering the drainage system from material dripping or lost on the runway and taxiway when the aircraft is taxing or upon takeoff allowing entry into the waters of Greenwich Bay. The outstanding question is how much deicing chemicals are entering the Greenwich Bay ecosystem and secondarily what are there (sic) BOD impacts on area streams and their aquatic resources.

Response:

Deicing fluids are applied to aircraft prior to takeoff at the terminal and cargo facilities, which do not have stormwater outfalls that discharge into the Greenwich Bay watershed. RIDEM and RIAC entered into a Consent Agreement in January 2012 to resolve a long-standing appeal of a 2004 RIPDES stormwater discharge permit. The consent agreement binds RIAC to abide by a newly issued RIPDES permit and implement a glycol impacted stormwater and snow melt collection, storage and treatment system. The system is designed to collect on average 60% of aircraft deicing fluid applied at the airport, which achieves or exceeds the average collection efficiencies consistent with centralized deicing pads across the country. See RIDEM Fact Sheet – Permit RI0021598 at 2. In addition, it is projected that deicing fluid usage in future years will decrease by about 30% over the average annual usage from 2004 to 2006 due to the completion of a consolidated glycol dispensing and blending facility in 2009. Based on water quality monitoring studies conducted by both RIDEM and RIAC, RIDEM has determined that the proposed level of control provided within the RIPDES permit will prevent violations of in-stream dissolved oxygen criteria. *Id.* at 12.

There is, however, a secondary deicing area located near the Runway 5 end that discharges stormwater through Outfall 10 and into Tuscatucket Brook, which is a tributary to Greenwich Bay. See FEIS at 5-221 and Figure 4-27. The secondary deicing areas are used only under limited, extreme weather circumstances when additional deicing may be required. Catch basin inserts will continue to be utilized at secondary deicing locations and GRV (glycol recovery vehicles) will collect glycol-impacted

1 stormwater and transfer it to storage tanks for onsite treatment and discharge to the 2 sewer. See FEIS Appendix A at 4-47. The discharge of deicing fluids into the storm 3 drain system at the secondary deicing area is prohibited under the terms and conditions 4 of the RIDEM RIPDES permit. 5 6 **Comment:** Consequently we proffer a determination of "no significant impact" should include 7 provisions for considering the entirety of impact from instant as well as past airport 8 projects measured against what has been a consistently degrading baseline of 9 condition. Moreover how can the existing and proposed drainage be improved to 10 comply with the goals, objectives and recommendations of the Greenwich Bay Special 11 Area Management Plan. 12 13 **Response:** As noted above, the FEIS conducted an analysis of baseline conditions compared to 14 what potential impacts the Project may have on the coastal resources, including a cumulative impacts analysis for water resources in Section 5.11.6 of the FEIS. 15 16 Stormwater drainage will be improved with the implementation by RIAC of their RIDEM-approved stormwater pollution prevention plan (SWPPP), the glycol recovery 17 and treatment facility to be operational in October 2014, and the RIPDES stormwater 18 discharge permit. In addition, all new impervious areas including the extended Runway 19 20 5-23, new parking areas and taxiways, and the relocated Main Avenue constructed as 21 part of the Project will require stormwater treatment in accordance with the 2010 22 Rhode Island Stormwater Design and Installation Standards Manual. Indeed, the RIAC 23 consistency certification letter in reference to the above manual states that "every 24 component of the Improvement Program will be designed in compliance with the 25 Manual." See RIAC letter to USACE dated November 22, 2011 at 3. 26 27 **Comment:** We find the instant proposal inconsistent with the following: (referencing specific sections of the Greenwich Bay SAMP) 28 29 30 **Response**: Please see the CRMC Staff Review and Recommendation document for the Project 31 addressing this comment (a separate document to be posted online with this response 32 document). 33 34 **Comment:** We request consideration for improving end-of-pipe stormwater treatment solutions for 35 all soluble pollutants including BOD (Biochemical Oxygen Demand) related to glycol 36 contribution entering the system from outfalls draining areas 10, 11, and 12 (see map) to Tuscatucket Brook that are outside the planned collection area for glycol collection 37 38 areas. 39 40 **Response**: Outfalls 011A and 012A have been combined behind a single headwall and the two drainage areas have a single shared stormwater discharge now noted as Outfall 011A. 41 See FEIS Table 4-32 at 4-48 and Figures 4-27 and 5-42. Neither outfall is noted as 42 receiving stormwater drainage from the secondary deicing area in Table 4-32. 43 However, Outfall 010A receives stormwater runoff from the southern end of Runway 44 45 5-23 and an associated taxiway including a secondary deicing area. *Id.* This particular

secondary deicing area, however, is rarely used and involves far less glycol than the primary terminal and cargo area deicing locations. See FEIS at 5-221.

Specifically in regard to the secondary deicing areas, the RIDEM states in a Fact Sheet issued on April 10, 2012 that "[u]nder limited circumstances (*e.g.*, extreme weather) deicing may be required at secondary deicing locations during wet weather deicing events. Catch basin inserts will be utilized at secondary deicing locations and glycol collection vehicles will collect the retained deicing runoff and transfer it to on-site storage tanks for on-site treatment." See RIDEM Fact Sheet – Permit RI0021598 at 7. In addition, Stipulation B.4.a.(1)(vii)c of the Stormwater Pollution Prevention Plan Requirements, which is incorporated in the pending RIPDES stormwater discharge permit (RI0021598), states "[p]rocedures for ensuring that aircraft deicing fluids (ADFs) do not enter the storm drainage system near secondary deicing areas. Catch basin inserts in secondary deicing areas shall remain closed during deicing events. The inserts may be opened once the deicing fluids have been collected." See RIPDES Permit No. RI0021598 at 16.

Limited water quality monitoring data was collected during the periods 2006 to 2010 for these particular outfalls. The data show propylene glycol concentrations of less than 10mg/L or no data for Outfall 10A and no data for Outfall 11A/12A during the limited sampling dates. In addition, BOD levels were generally less than 3.0mg/L for all three outfalls with the highest recorded levels of 8.1mg/L on two separate dates at Outfall 10A. See FEIS Appendix K.3 at K-22 and 23. Water quality monitoring conducted during 2004 to 2007 in development of the FEIS indicate extremely low fecal coliform counts during dry and wet weather events for Outfall 011A/012A. See FEIS at 4-60.

Both RIDEM and RIAC monitored in-stream water quality during a winter storm in February 2011 where aircraft deicing fluids were applied at the airport. Both data sets indicate that there was no exceedance of dissolved oxygen (DO) criteria. And, in reference to the implementation of the RIAC stormwater pollution prevention plan and the proposed Deicer Management system, RIDEM states that "[b]ased on the historical monitoring, DEM has determined that the proposed level of control will prevent violations of in-stream DO criteria." <u>See</u> RIDEM Fact Sheet Permit No. RI0021598 at 12.

The RIDEM also states that "[w]ater quality monitoring to date does not indicate discharges from T.F Green are significant sources of Phosphorus, Fecal Coliform bacteria, or Enterococcus.", and that RIDEM "has determined that all permit limitations are consistent with the Rhode Island Anti-degradation policy." <u>See</u> RIDEM Fact Sheet Permit No. RI0021598 at 11.

Given the above information concerning aircraft deicer fluid application and management, the RIDEM findings in regard to the pending RIPDES stormwater discharge permit and that the installation of new stormwater BMPs will be required for the Project to address all new impervious surface areas, it is reasonable to conclude

based on these facts, that it appears the water quality of Tuscatucket Brook will not be significantly impacted as a result of the Project.

Comment:

 It is our opinion that the proposed runway improvements to 5-23 should be considered a new development with all the drainage within the subject watersheds depicted in this map subject to today's structural stormwater treatment practices defined in the 2010 Rhode Island Stormwater Design and Installation Standards Manual including retrofitting said outfalls to meet the water quality objectives of the Greenwich Bay Special Area Management Plan.

Response:

The CRMC agrees that all new improvements to Runways 5-23, as with all other new impervious areas of the Project, should be considered new development for purposes of implementing state regulatory stormwater management requirements. As stated in the FEIS in Section 5.11.4.3 "[t]he construction of any new impervious areas would be designed to meet the 2010 *Stormwater Design and Installations Standards Manual* and therefore would not adversely affect water quality." See FEIS at 5-218. In the discussion pertaining to Water Quality in Section 10.9 of the ROD, it states "[t]he Project will be designed to comply with all applicable federal and state regulatory standards, including 2010 RIDEM Water Quality Regulations and the *Rhode Island Stormwater Design and Installation Standards Manual* adopted in December 2010." See ROD at 51.

Additionally, the planned relocation of Main Avenue to accommodate the 1530-foot extension of Runway 5-23 to the south will result in a new roadway segment. See ROD Figure 2-1 at 3. The entire new segment of Main Avenue will be required to meet state regulatory stormwater management standards and will incorporate stormwater best management practices (BMPs) that may consist of bioretention, vegetated swales and vegetated buffers. See FEIS Table 6-13. Currently, the Project is only at the 30% design stage and stormwater designs have yet to be finalized. As stated in the FEIS, "[t]he stormwater management report for the Improvement Program projects would include a more detailed analysis that would include an evaluation of the smaller storm events and could also redistribute the subsurface and surface infiltration/detention systems within smaller sub-watersheds. This analysis would also include design of the outlet control structures to increase the efficiency of these systems resulting in smaller systems than those determined in the FEIS analysis." See FEIS at 6-34.

Since all new BMPs must be designed in accordance with new state stormwater standards, they will provide improved water quality treatment as compared to the existing drainage system along Main Avenue. Further, there will be a net reduction of 2.4 acres of impervious area within the Callahan Brook watershed after completion of the Project. See FEIS Table 5-116 at 5-217. The combined effects of the new Main Avenue segment stormwater BMPs and the reduction of impervious surface area will decrease the volume of stormwater runoff and associated pollutants to Callahan Brook, a tributary to Greenwich Bay.

 The following are comments submitted by Richard Langseth, Executive Director of the Greenwich Bay Watershed Group. His comments are based primarily on a review of the FAA Record of Decision (ROD) and on a United States Environmental Protection Agency (EPA) letter dated September 6, 2010 followed by the CRMC's response.

Comment:

I have found no reference in the ROD addressing stormwater pipes and bedding materials left in place within the Greenwich Bay Special Area Management Plan areas being impacted. This is an area of special concern to the Greenwich Bay Watershed Group. I have commented on this item in written comments presented to the FAA's consultant and at public meetings and the hearing. This issue has been ignored and presents a stormwater deluge challenge to Brushneck Cove and Greenwich Bay. This entire issue falls within the SAMP and should be directly addressed by the CRMC in its consistency determination.

Response:

The EPA in their comments on the DEIS identified issues concerning the assumptions for the conversion of impervious to pervious areas, accounting for appropriate drainage characteristics, and stormwater drainage pipes and bedding material within the Voluntary Land Acquisition Program (VLAP) areas. The CRMC raised similar concerns in its September 13, 2010 letter to RIAC. See FEIS Appendix A at A-91. As shown in Figure 5-8 (Volume 2) of the FEIS, VLAP areas are located at the headwaters of Tuscatucket Brook and near the headwaters of Callahan Brook, both which drain to Brushneck Cove and into Greenwich Bay.

The assumptions and stormwater drainage analysis for these voluntary land acquisition areas was modified in the FEIS. See FEIS Section 5.11 and Appendix A.1.13. Although the roadways and drainage structures will remain after residential structures and parking areas are demolished and replanted with grass within the voluntary land acquisition areas, overall runoff volumes will decrease from these areas because there will be less overall impervious surface area. The Tuscatucket Brook watershed will see a 0.4 acre decrease and the Callahan Brook watershed will see a reduction of 3.5 acres of impervious surface area within these voluntary land acquisition areas. See FEIS Table 5-116.

Additionally, the FEIS states that "stormwater runoff characteristics of land that is converted from impervious surfaces to pervious surfaces and any remaining stormwater collection infrastructure would be accounted for in the design of stormwater BMPs. Any areas that are converted from impervious to pervious surfaces will result in water quality improvements, regardless of any stormwater collection systems that remain." See FEIS Appendix A.2 at A-68.

Further, all new impervious areas, including the extended Runway 5-23, new parking areas and taxiways, and the relocated Main Avenue, will require stormwater best management practices (BMPs) in accordance with the recently revised *Rhode Island Stormwater Design and Installation Standards Manual* that has been adopted by both RIDEM and CRMC. The ROD and FEIS both state that all improvements will meet such requirements. For example, the ROD states the following:

 Comment:

"To address CRMP Section 300.6 Stormwater Management for Large Projects, the Project will comply with the requirements of the most recent version of the Rhode Island Stormwater Design and Installation Standards Manual for the stormwater design." See ROD at 66.

"Greenwich Bay SAMP Section 120.2 — Improve Greenwich Bay's Water Quality, which indicates that RIAC should "implement Best Management Practices (BMPs) to reduce storm water discharge volume and nitrogen and bacteria concentrations," will be implemented according to SAMP Section 470.5B.17, which identifies recommended actions for meeting the goal of improved water quality within Greenwich Bay. RIAC will implement BMPs to reduce storm water discharge volume and nitrogen and bacteria concentrations as part of the design and implementation of the Project." *Id.*

In addition, the EPA in a letter to the FAA dated August 2, 2011 stated "EPA's comments on the DEIS requested that the FAA address deficiencies and concerns related to wetland impacts and mitigation, water and air quality impacts, and environmental justice. While we have no further comments on the FEIS regarding those issues, we anticipate continued involvement with the project through the Corps of Engineers' Clean Water Act Section 404 process."(Emphasis added.) See ROD at A-5. It appears from the EPA statements therein that the Agency is satisfied that previously noted deficiencies and concerns within the DEIS were adequately addressed within the FEIS.

Thus, since the FEIS does account for the new hydrologic analysis, as detailed in Sections A.1.13, and all new impervious surfaces will be treated with best management practices as describe above, the issue of concern has not been ignored and should not result in a stormwater deluge to Brushneck Cove or Greenwich Bay.

Comment: I have found no correction of analysis in the ROD. Some of this acquired land is within the Greenwich Bay Special Area Management Plan area. To the extent that this issue falls within the SAMP it should be directly addressed by the CRMC in its consistency

determination.

Response: The correction of analysis was completed in the FEIS. See preceding response.

Regarding Wetlands Mitigation Site 12, the Conimicut Point Marsh, Page 50 of the Record of Decision shows that a Wetlands Working Group was convened on February 23, 2011. It reports that "USACE will act on the (Section 404) permit following publication of this ROD and completion of the RIDEM permitting process. This area is within the CRMC coastal jurisdiction and not the RIDEM jurisdiction and I have not found evidence that a CRMC process was initiated or completed. I am asking for a review of the CRMC files to determine if CRMC has conducted a review of this matter. It should be included in the consistency determination.

Response:

As noted in Section 10 of the ROD and the FEIS in Section 6.9.1, wetland mitigation is proposed to meet the federal EPA and U.S. Army Corps of Engineers (USACE) compensatory wetland mitigation requirements for proposed wetland alterations at the Runway 34 end. Potential compensatory wetland mitigation sites are shown in Figure 6-2 of the FEIS. Federal jurisdictional vegetated freshwater wetland impacts have been reduced from 7.3 acres in the DEIS to 5.0 acres in the FEIS as a result of modifying the Alternative B4 airport Project design. The 5.0 acres of impacted freshwater wetlands are located on airport property at the Runway 34 end and are located exclusively within the state freshwater wetland jurisdiction of the RIDEM and *not* within the Greenwich Bay watershed. See FEIS Volume 2, Figures 4-32 and 5-40. RIDEM has exclusive freshwater wetland jurisdiction in this matter and will be processing all necessary state permits associated with the proposed freshwater wetland alterations associated with the Project.

As noted above, the construction activity associated with the Project does *not* involve any alteration of freshwater or coastal wetlands within CRMC jurisdiction. Furthermore, there are no proposed wetlands alterations associated with the Project that are located within the Greenwich Bay watershed. Consequently in this matter, compensatory mitigation under Section 300.12 of the state coastal program is *not* required. Thus, the CRMC federal consistency review process does not need to address this particular issue. Nevertheless, the CRMC was involved in the Wetland Working Group process and had previously suggested sites 10 and 11 as potential mitigation sites if alternative off-site locations were needed to fulfill federal mitigation requirements. See FEIS Appendix C.5. Mitigation sites 10 and 11 were suggested by the CRMC because they are located within the Greenwich Bay watershed and are listed in Table 10 and depicted in Figure 15 of the CRMC Greenwich Bay Special Area Management Plan as recommended potential coastal wetland restoration sites. Ultimately, these two sites were not selected by the Wetland Working Group, and consequently not included in the FEIS.

Mitigation Site 12, which is adjacent to Mill Cove at Conimicut Point (see FEIS Figures 6-2 and 6-8), was added as a result of the suggestion of Save The Bay and the Mill Cove Conservancy and was discussed at the February 15, 2011 Wetlands Working Group meeting. See FEIS Appendix C.5. Mitigation Site 12 was suggested because of the development pressure on existing undeveloped parcels within the coastal wetland complex there. It was proposed that the coastal saltmarsh at this location could be better preserved by purchasing development rights and preventing further wetland and upland buffer alterations. This proposed mitigation action would not involve alterations to coastal wetlands, and thus a CRMC state Assent is not required. The USACE affirmed that the proposed mitigation program (which includes Mitigation Site 12) meets the federal mitigation requirements and that USACE is likely to approve a Clean Water Act Section 404 Permit for the Project. See ROD at 50.