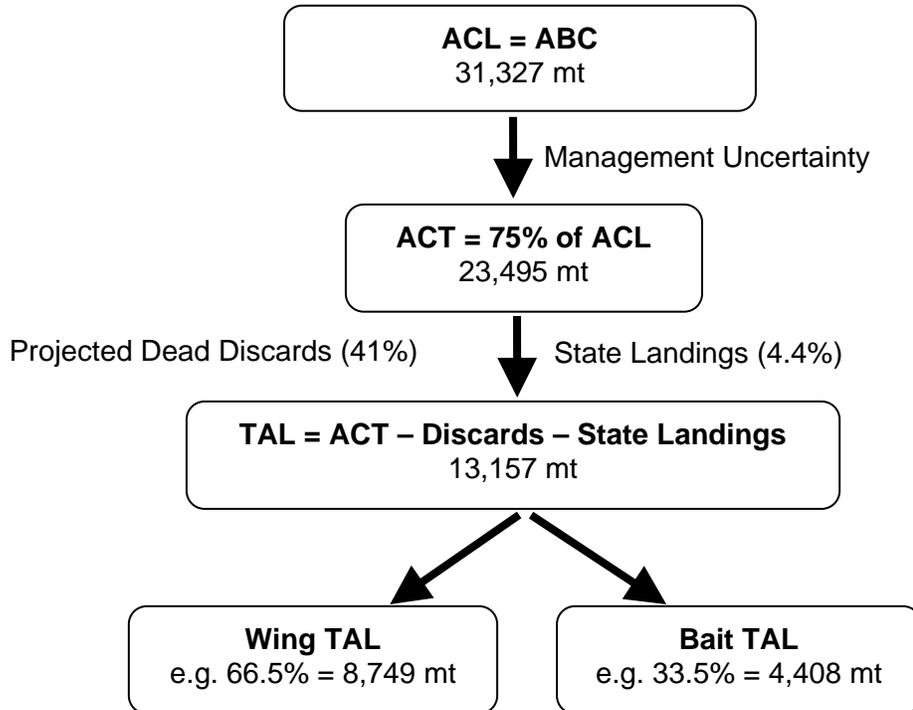


## 1.0 Alternatives Under Consideration

### 1.1 Modification to the Uncertainty Buffer

#### 1.1.1 Option 1: No Action

The uncertainty buffer between the ACL and the ACT parameters would remain unchanged from the final ACL specifications for the 2018-2019 fishing years (see diagram below) in the final regulations for the specifications package.

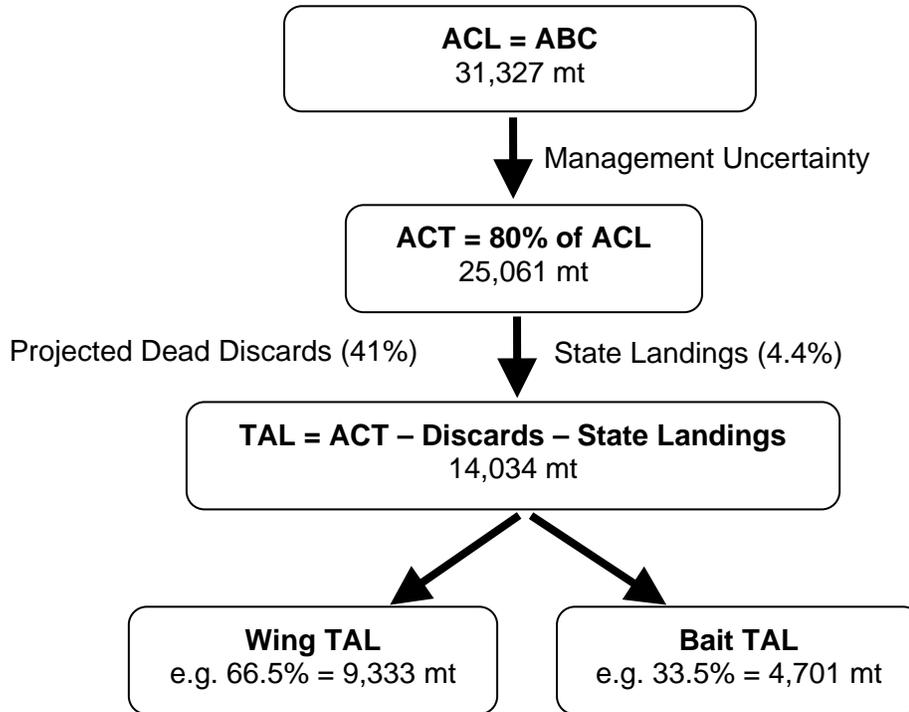


*Rationale:* The No Action alternative would not reduce the buffer between the ACL and the ACT. The buffer would be maintained at 25% in order to reduce the risk of the ACL being exceeded.

#### 1.1.2 Option 2: Reduction in the Uncertainty Buffer to 20%

The buffer between the ACL and the ACT would be reduced from 25% to **20%**. The ABC/ACL would remain the same but the ACT and TALs would be adjusted.

The ACT would increase to **25,061** mt. After deducting amounts for projected dead discards and state landings, the TAL would increase to **14,034** mt.



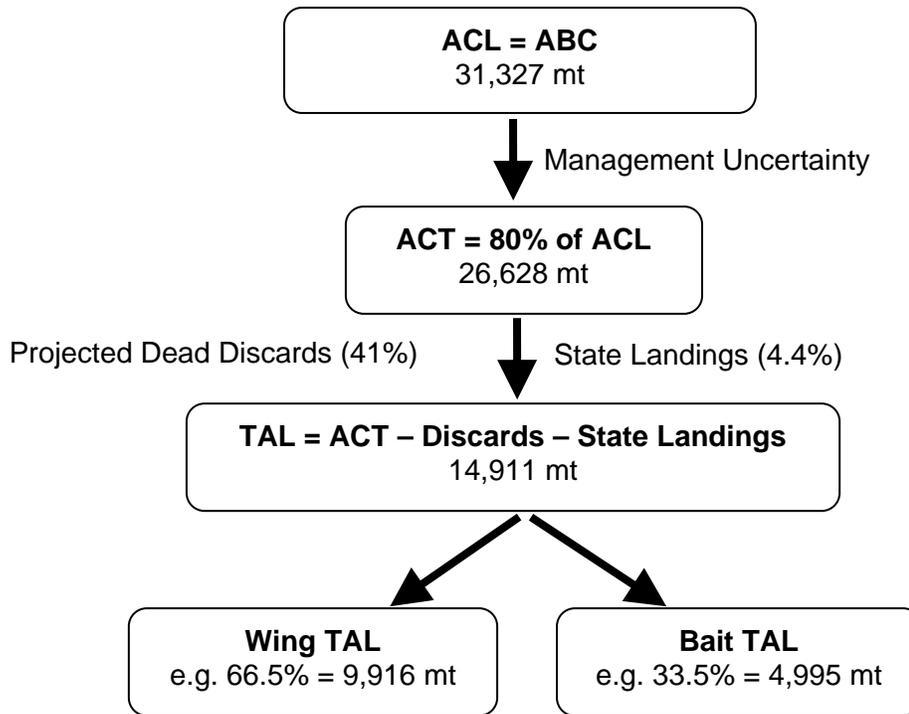
*Rationale:* A buffer is recommended to reduce the likelihood of the ACL from being exceeded. The overfishing limit is currently not defined for the Northeast Skate Complex. The skate complex has proven unsuitable for traditional stock assessment models to be used, resulting in an empirical assessment based on the Northeast Fishery Science Center Trawl Survey indices that are used as biomass proxies. This contributes to the uncertainty surrounding the specifications process. The calculation of ABC uses the median Catch/Biomass ratio (rather than a higher percentile), as implemented in Amendment 3. This was considered risk-averse and captures the scientific uncertainty in the catch/biomass relationship. Other sources of uncertainty within the ABC calculation include: uncertainty in species-specific landings data, species-specific discards are indirectly estimated by using observer and trawl survey data, overall estimates of discards are variable, large amounts of skates are discarded (dead discards currently account for 41% of the ACL), discard mortality rates are assumed to be 50% for all stocks and gear types except where research has provided revised estimates, and the relationship between catch and survey biomass. The magnitude of discards, and fluctuations in the estimates, represents another source of uncertainty. Skates are encountered in a range of fisheries and gear types and a large portion of biomass is set aside to account for projected dead discards.

This alternative would reduce the uncertainty buffer reflecting the improvements made in factors affecting scientific uncertainty, e.g., post-release discard mortality research for some species, and management uncertainty, e.g., species-specific reporting, minimal quota overages.

### 1.1.3 Option 3: Reduction in the Uncertainty Buffer to 50%

The buffer between the ACL and the ACT would be reduced from 25% to **15%**. The ABC/ACL would remain the same but the ACT and TALs would be adjusted.

The ACT would increase to **26,628** mt. After deducting amounts for projected dead discards and state landings, the TAL would increase to **14,911** mt.



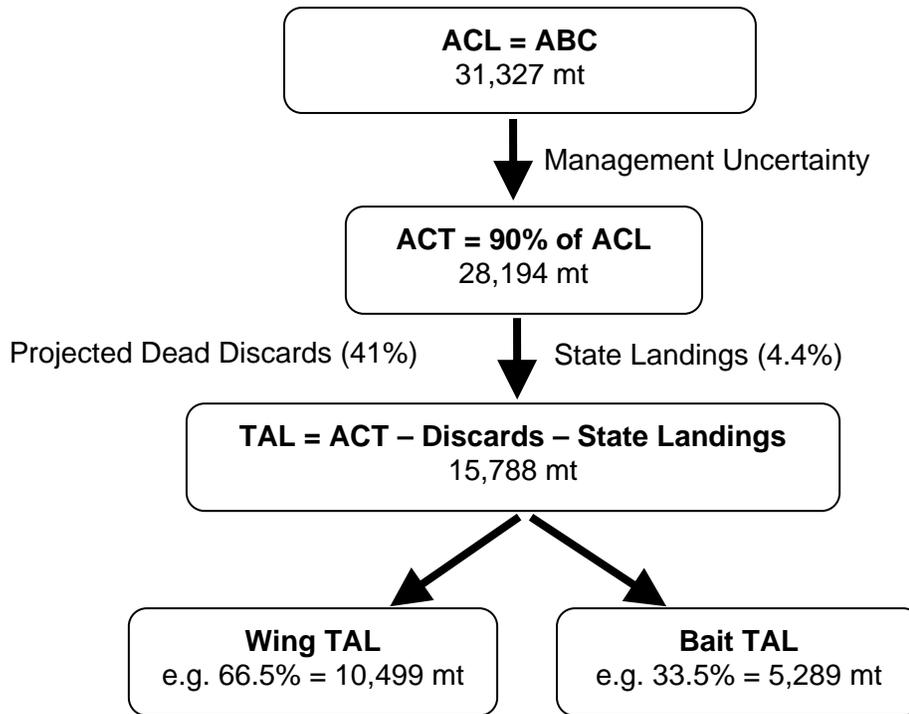
*Rationale:* A buffer is recommended to reduce the likelihood of the ACL from being exceeded. The overfishing limit is currently not defined for the Northeast Skate Complex. The skate complex has proven unsuitable for traditional stock assessment models to be used, resulting in an empirical assessment based on the Northeast Fishery Science Center Trawl Survey indices that are used as biomass proxies. This contributes to the uncertainty surrounding the specifications process. The calculation of ABC uses the median C/B (rather than a higher percentile). This was considered risk-averse and captures the scientific uncertainty in the catch/biomass relationship. Other sources of uncertainty within the ABC calculation include: species-specific landings, species-specific estimates of discards, overall estimates of discards, discard mortality rates, and the relationship between catch and survey biomass. The magnitude of discards, and fluctuations in the estimates, represents another source of uncertainty. Skates are encountered in a range of fisheries and gear types and a large portion of biomass is set aside to account for projected dead discards.

This alternative would reduce the uncertainty buffer reflecting the improvements made in factors affecting scientific uncertainty, e.g., post-release discard mortality research for some species, and management uncertainty, e.g., species-specific reporting, minimal quota overages.

#### 1.1.4 Option 4: Reduction in the Uncertainty Buffer to 10%

The buffer between the ACL and the ACT would be reduced from 25% to **10%**. The ABC/ACL would remain the same but the ACT and TALs would be adjusted.

The ACT would increase to **28,194** mt. After deducting amounts for projected dead discards and state landings, the TAL would increase to **15,788** mt.



*Rationale:* A buffer is recommended to reduce the likelihood of the ACL from being exceeded. The overfishing limit is currently not defined for the Northeast Skate Complex. The skate complex has proven unsuitable for traditional stock assessment models to be used, resulting in an empirical assessment based on the Northeast Fishery Science Center Trawl Survey indices that are used as biomass proxies. This contributes to the uncertainty surrounding the specifications process. The calculation of ABC uses the median C/B (rather than a higher percentile). This was considered risk-averse and captures the scientific uncertainty in the catch/biomass relationship. Other sources of uncertainty within the ABC calculation include: species-specific landings, species-specific estimates of discards, overall estimates of discards, discard mortality rates, and the relationship between catch and survey biomass. The magnitude of discards, and fluctuations in the estimates, represents another source of uncertainty. Skates are encountered in a range of fisheries and gear types and a large portion of biomass is set aside to account for projected dead discards.

This alternative would reduce the uncertainty buffer reflecting the improvements made in factors affecting scientific uncertainty, e.g., post-release discard mortality research for some species, and management uncertainty, e.g., species-specific reporting, minimal quota overages.

## 1.2 Skate Wing Possession Limit Alternatives

### 1.2.1 Option 1: No Action

The No Action alternative would not change the possession limits for the wing fishery. For vessels fishing under a NE multispecies A, Atlantic sea scallop, or monkfish DAS, the possession limit will remain at 2,600 lb in season 1 and 4,100 lb in season 2.

**Rationale:** This alternative would allow for additional rebuilding of barndoor skate to continue.

### 1.2.2 Option 2: Seasonal Intermediate Skate Wing Possession Limit

This alternative would establish a seasonal intermediate skate wing possession limit once XX% of the Season 1 TAL was reached or the annual TAL was reached. The intermediate skate wing possession limit would be set at X lb in Season 1 (May 1 – Aug 31) and X lb in Season 2 (Sep 1 – Apr 30). The Regional Administrator (RA) would have the discretion to implement the seasonal intermediate skate wing possession limits if the fishery was projected to exceed 90% of the relevant TAL before the end of Season 1 or the end of the fishing year. This alternative would increase the incidental possession limit trigger from 85% to 90%. If the fishery was not projected to exceed 90%, the RA is not required to implement the intermediate skate wing possession limit. If the fishery was projected to exceed the TAL after 90% of the TAL had been achieved then the RA would have the discretion to implement the 500 lb incidental limit.

**Rationale:** This alternative would help to prolong the fishery for as long as possible. The existing management strategy for the skate wing fishery does not close the fishery once 100% of the TAL has been landed. The incidental possession limit of 500 lb was intended to allow the fishery to continue to operate at a low level, and to reduce negative impacts on other fisheries, e.g. groundfish and monkfish, that experience high interactions with skate. However, the incidental possession limit can result in an effective closure in the fishery, especially for vessels that target skate, which can negatively impact shoreside infrastructure. The intermediate skate wing possession limits would be expected to slow landing of skate sufficiently, when needed, to minimize negative impacts on fishermen and shoreside infrastructure.