It seems there is a little problem with the degree and dimension. I assume that $\mathcal{T} \in \mathcal{D}^p(\widehat{X})$ and $\mathcal{S} \in \mathcal{D}^{n-p+1}(X)$.

We need to show that the super-potential of $q_*\mathcal{T}$, which is a function defined on smooth forms in $\mathcal{D}^{n-q+1,0}(X)$, can be extended to a continuous function on $\mathcal{D}^{n-q+1,0}(X)$. Let α be a smooth closed (p,p)-form cohomologous to $q_*\mathcal{T}$ and define $\beta := q^*\alpha$. By hypothesis, we have $q^*q_*\mathcal{T} = \mathcal{T}$. It follows that $\mathcal{T}$ is cohomologous to β. Fix a potential U of $q_*\mathcal{T} - \alpha$ which is smooth near the blowup locus. We have $dd^cU = q_*\mathcal{T} - \alpha$ and therefore $dd^c q^*U = \mathcal{T} - \beta$. The smoothness of U near the blowup locus implies that $q_*(q^*U) = U$.

Since α is smooth, it is enough to show that the superpotential $\mathcal{U}$ of $q_*\mathcal{T} - \alpha$ can be extended to a continuous function on $\mathcal{D}^{n-q+1,0}(X)$. Since the last current has a vanishing cohomology class, its superpotential doesn't depend on the normalization.

Claim 1. Let $(\mathcal{S}_n)$ be a bounded sequence of smooth forms in $\mathcal{D}^{n-p+1}(X)$. Then the sequence $\mathcal{U}(\mathcal{S}_n)$ is bounded.

Proof of Claim 1. Since $\mathcal{S}_n$ is smooth, we have

$$\mathcal{U}(\mathcal{S}_n) = \langle U, \mathcal{S}_n \rangle = \langle q^*(U), q^*\mathcal{S}_n \rangle = \widehat{\mathcal{U}}(q^*\mathcal{S}_n),$$

where $\widehat{\mathcal{U}}$ denotes the superpotential of $\mathcal{T} - \beta$. Since the action of q^* on cohomology is bounded and the mass of a positive closed current only depends on its cohomology class, we see that $q^*\mathcal{S}_n$ is bounded in $\mathcal{D}^{n-p+1,0}(\widehat{X})$. Since $\mathcal{T}$ has a continuous superpotential, we deduce that $\widehat{\mathcal{U}}(q^*\mathcal{S}_n)$ is bounded and hence $\mathcal{U}(\mathcal{S}_n)$ is bounded as claimed. □

Claim 2. Let $(\mathcal{S}_n)$ be a bounded sequence of smooth forms in $\mathcal{D}^{n-p+1}(X)$ converging to 0. Then $\mathcal{U}(\mathcal{S}_n)$ tends to 0.

Proof of Claim 2. By extracting a subsequence, we can assume that $q^*\mathcal{S}_n$ converges to some current $\mathcal{R}$ supported by the exceptional divisor. By hypothesis, we have $q_*(\mathcal{R}) = 0$. Using the computation in Claim 1, and the fact that $\widehat{\mathcal{U}}$ is continuous, we get

$$\lim \mathcal{U}(\mathcal{S}_n) = \widehat{\mathcal{U}}(\mathcal{R}).$$

Now, since q^*U is smooth near the exceptional divisor which supports $\mathcal{R}$, we deduce that

$$\widehat{\mathcal{U}}(\mathcal{R}) = \langle q^*U, \mathcal{R} \rangle = \langle U, q_*\mathcal{R} \rangle = 0.$$

This proved the claim. □

To finish the proof, let $\mathcal{S}$ be any current in $\mathcal{D}^{n-p+1,0}(X)$. Choose a bounded sequence $\mathcal{R}_n$ of smooth forms in $\mathcal{D}^{n-p+1,0}(X)$ converging to $\mathcal{S}$. By Claim 1, extracting a subsequence allows to assume that $\mathcal{U}(\mathcal{R}_n)$ converges to some real number l. Consider now an arbitrary bounded sequence of $(\mathcal{S}_n)$ of smooth forms in $\mathcal{D}^{n-p+1,0}(X)$ converging to $\mathcal{S}$. To show that $\mathcal{U}$ extends to a continuous function at $\mathcal{S}$, it is enough to check that $\mathcal{U}(\mathcal{S}_n)$ converges to l. This is a consequence of Claim 2 applied to the sequence $\mathcal{S}_n - \mathcal{R}_n$.