



PROPOSAL FOR

Water Elevation Monitoring Services

Annual Contract

RFP No. 20260423 Charlotte County, Florida

Submitted by

Hyfi, LLC

455 E. Eisenhower Parkway, Suite 300, Ann Arbor, MI 48108

Primary contact: Brooke Mason, Project Manager (937) 418-3426 brooke@hyfi.io

Proposal due: June 9, 2026, 3:00 p.m. EST



455 E. Eisenhower Parkway, Suite 300, Ann Arbor, MI 48108
hyfi.io

June 9, 2026

Rhiannon Mills
Senior Contract Specialist, Charlotte County Purchasing Division
18500 Murdock Circle, Suite 344
Port Charlotte, FL 33948-1094

Re: RFP No. 20260423, Water Elevation Monitoring Services (Annual Contract)

Dear Ms. Mills,

Hyfi, LLC is pleased to submit this proposal in response to RFP No. 20260423 for Water Elevation Monitoring Services. We understand Charlotte County is seeking a fully managed, turnkey partner to establish and operate a surface water elevation monitoring network of up to 30 sites across its tidal, coastal, riverine, and urban stormwater environments.

Hyfi is well matched to this scope of services. We design and build our own non-contact water level sensors, in both radar and acoustic. We run our own cloud data platform and API. The same team carries the work end to end, from site design and installation through surveying and the years of operation that follow. We already operate real-time tide and storm-surge sensors across communities in the US, including in Charlotte Harbor, and our networks have performed through Gulf Coast hurricane conditions, so we bring both local familiarity and proven technology to this contract.

Dr. Brooke Mason will serve as Project Manager and the County's contact for this project, supported by McKim & Creed as our Florida-licensed surveying and local field support sub-consultant. Hyfi commits that the Project Manager and the key personnel named in this proposal will not be substituted or reassigned without the County's express prior written permission.

Hyfi acknowledges that this proposal constitutes an irrevocable offer valid for 120 days from the proposal due date. Hyfi also acknowledges receipt of Addendum No. 1 (dated May 21, 2026), Addendum No. 2 (dated June 1, 2026), and Addendum No. 3 (dated June 3, 2026). We have reviewed the RFP, its terms and conditions, and the insurance requirements, and we submit this proposal with full understanding of them.

Thank you for the opportunity to propose. We look forward to the possibility of supporting Charlotte County's water monitoring and resilience goals.

Sincerely,

A handwritten signature in black ink, appearing to read "Brandon P. Wong".

Brandon P. Wong

Chief Executive Officer, Hyfi, LLC
(858) 603-3796 brandon@hyfi.io



Executive Summary

Charlotte County is seeking a firm to establish and operate a five-year surface water elevation monitoring network of up to 30 sites across its tidal, coastal, riverine, and urban stormwater environments. Hyfi proposes to deliver this network as a fully managed service. We will design the network around the County's own flood data and priorities, install and survey each location, and operate the system for the full term of the contract, giving County staff real-time data and alerts during storms and continuous, survey-grade records for modeling, rating curves, and resilience planning.

Hyfi is well matched to this scope because we control the entire system. We build the sensors, run the platform, and put our own crews in the field. The County works with one accountable team and one contact, supported by McKim & Creed, a Florida-licensed surveying firm with offices in Sarasota and Fort Myers.

The sections that follow are summarized below.

Section	Summary
I. Team Proposed	A senior in-house team led by Project Manager Dr. Brooke Mason as the County's point of contact, with McKim & Creed providing Florida-licensed survey support.
II. Management Plan	A turnkey service: sites selected from County data and approved by the County, then installed, surveyed, and operated under one project manager.
III. Previous Experience	Flood networks the team operates today in New Orleans, in Dearborn and across Michigan, in Charlotte Harbor, and along the Atlantic coast.
IV. Project Control	A flexible phased schedule with defined milestones for each site, owned by the project manager, with priority sites available soon after award.
V. Design Approach	Non-contact radar and acoustic sensors, hurricane-rated mounting, NAVD88 survey control, and an open data platform and API that meet the RFP specifications.
VI. Similar Projects & Reliability	Comparable public-agency networks with documented uptime above the RFP minimums and quality control aligned with NOAA QARTOD.
VII. Experience & Capabilities	Fully managed operations and maintenance, spare equipment from Hyfi's own production, technical support, and quarterly performance reviews.
VIII. Volume of Work	\$14,950 in payments from the County over the past 24 months.
IX. Location	Florida-licensed survey crews in Sarasota and Fort Myers, and Hyfi sensors already operating within the County.
X. Litigation	No litigation involving Hyfi.
XI. Minority Business	Self-reported Minority Business Enterprise.



Section I. Team Proposed for This Project

Hyfi proposes an experienced, award-winning team organized for accountability and fast response. Every part of this contract, from network design and installation through surveying, operations, maintenance, and County communication, runs through a single experienced Project Manager. The team brings together the people who design and manufacture Hyfi's sensors, operate its data platform, and run a national sensor field fleet, supported by a Florida-licensed surveying consultant for geodetic survey and local field response.

AT A GLANCE

- 1. One accountable PM:** Dr. Brooke Mason is the County's point of contact across design, install, survey, operations, and communication. She has led the deployment of hundreds of sensors nationally, ensuring reliability across various environments.
- 2. Key personnel:** recognized internationally for their work on smart water systems, the team brings together training in both water resources and computer science. Hyfi delivers the network turnkey from day one.
- 3. Consultant, Florida-licensed survey partner:** Florida-based McKim & Creed for certified NAVD88 survey and local field response, adhering to the highest state requirements for operational use.

Name / role on this contract	Relevant credential	Yrs	Comparable experience
Dr. Brooke Mason, Project Manager (contact)	Ph.D. Civil Eng., Univ. of Michigan; M.S. Electrical & Computer Eng.; Hyfi COO	12	Led 500-sensor fleet, including in New Orleans, Chicago, and Florida
Dr. Brandon Wong, Principal in Charge & Technical Deployment Lead	Ph.D. Civil Eng., Univ. of Michigan; Hyfi co-founder & CEO	12	Sensor selection, mounting, siting and integration
Dr. Branko Kerkez, QA/QC Lead	National Academy of Engineering Award Winner; trained in civil engineering and computer science; co-founder & CTO; Professor, Univ. of Michigan	20	Owns QA/QC methodology; recognized international expert in digital water systems
Jacob Smith, Field Operations Lead	Hyfi field fleet manager	10	Installation, commissioning, maintenance program
Ariel Roy, Data Platform & API Lead	Platform / software engineering	5	Platform, API, and County-facing tools and flags
Jacqueline Buford, Hardware & Data Quality Lead	Hardware / firmware engineering	3	Device-side data quality and fleet diagnostics
Taylor Henning, Survey & Field Support	Professional Surveyor & Mapper, FL, B.S. Geomatics	13	Local survey experience and field team lead



A. Background of the Personnel

Project Manager

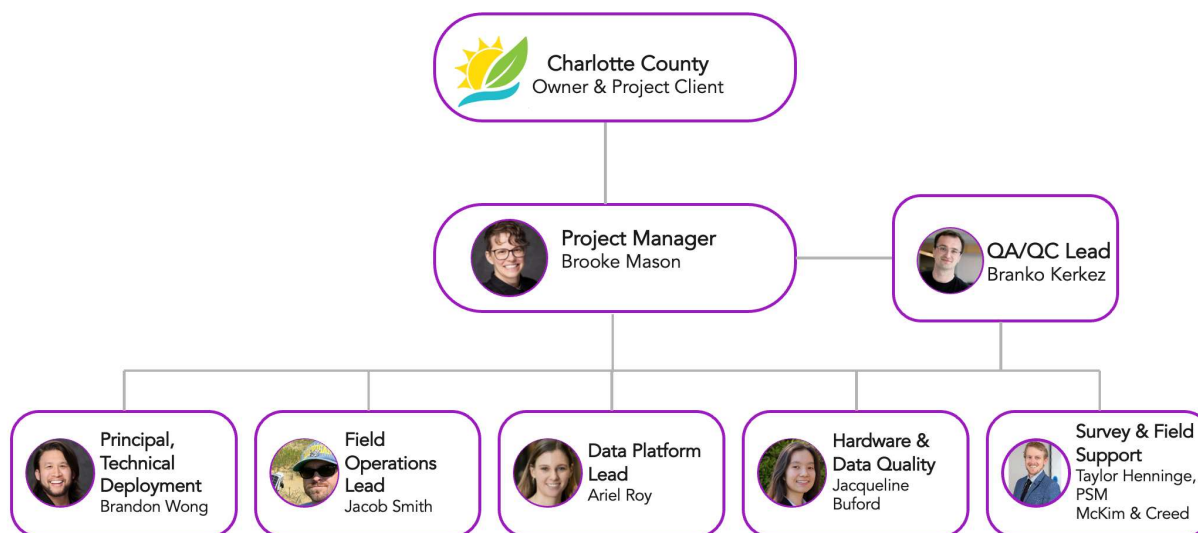
Dr. Brooke Mason serves as Project Manager and the County's contact for this contract. As Hyfi's Chief Operating Officer she leads company operations, from field deployment and supply chain to customer support, and holds a Ph.D. in Civil Engineering from the University of Michigan with a graduate degree in Electrical and Computer Engineering. Her leadership has been central to Hyfi's largest deployments, including roughly 500 sensors. On this contract she is accountable for the project schedule and deliverables, leads the quarterly performance reviews, and coordinates all communication among Hyfi staff, the surveying sub-consultant, and County departments.



Other Key Personnel

- **Dr. Brandon Wong, Principal in Charge and Technical Deployment Lead.** Hyfi co-founder and CEO; leads the technical decisions on sensor selection, mounting, siting, and integration. Brandon led the Hyfi team to win the Verizon Disaster Resilience Prize in 2021, leading in national recognition and partnership with a major cellular provider.
- **Branko Kerkez, QA/QC Lead.** Hyfi co-founder and CTO; Branko is an internationally recognized expert in Digital Water Systems, with over 20 years of experience in applications of wireless sensor networks to water systems. He is the CTO of Hyfi, and the Arthur F. Thurnau Professor at the University of Michigan. He has been named a National Academy of Engineering Gilbreth Lecturer and a recipient of the National Science Foundation's CAREER award. He leads the project's QA/QC methodology and analytics approach.
- **Jacob Smith, Field Operations Lead.** Runs Hyfi's national field fleet; leads installation, commissioning, and the preventive and corrective maintenance program for this contract.
- **Ariel Roy, Data Platform and API Lead.** Maintains the platform, API, and tools County staff will use day to day, including the quality flags on every reading.
- **Jacqueline Buford, Hardware Integration and Data Quality Lead.** Owns hardware integration, device-side data quality, and diagnostics across Hyfi's sensor fleet.

Full resumes are provided in Appendix B.



Hyfi project organization

Consultants/Contractors

Hyfi has teamed with McKim & Creed, Inc., a Florida-licensed professional surveying and engineering firm, as our survey and local field support sub-consultant. McKim & Creed provides geodetic surveying certified by a Professional Surveyor and Mapper (PSM), with a strong Florida footprint including offices in Sarasota and Fort Myers that put their crews close to Charlotte County for fast field response. The resume for their lead PSM is provided in Appendix B.

Commitment to Continuity of Personnel

Hyfi commits that Brooke Mason, Project Manager, and the key personnel named in this section will remain assigned to this contract. None will be substituted or reassigned without the express prior written permission of Charlotte County. Should a substitution become unavoidable, Hyfi will promptly propose a replacement of equal or greater qualifications for the County's review and written approval.

Section II. Proposed Management Plan

AT A GLANCE

1. **Design Phase:** Vetted optimal sensor placement methodology turns the County's data into a proposed sensor map that is approved before installation. The result is sensor coverage that makes the most out of the 30 sites proposed.
2. **Construction Phase:** Phased deployment with priority sites first, each surveyed to millimeter NAVD88 precision, and every site going live as soon as it is deployed.
3. **Unified Management:** One accountable Project Manager and a compact senior team. Hyfi is the prime contractor, and the Florida-licensed survey sub-consultant is scheduled from day one.



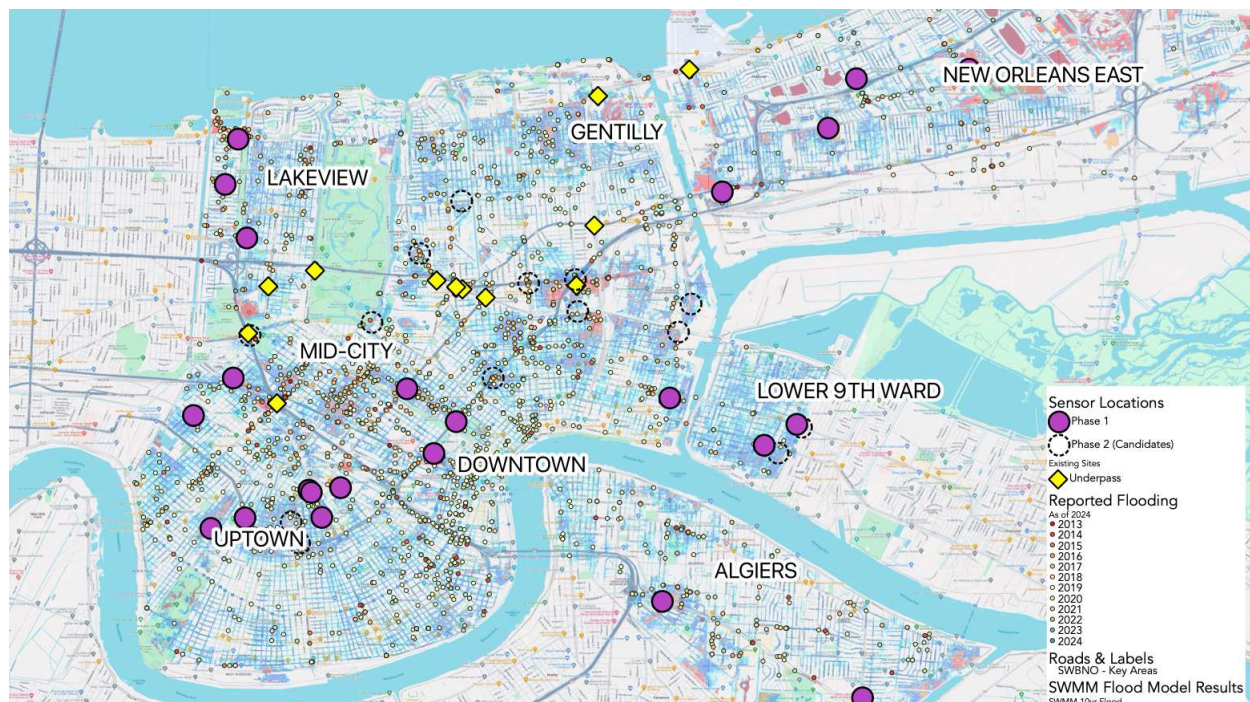
The work moves through two phases. In the design phase we turn the County's own data and priorities into an approved sensor map. In the construction phase we deploy that map, survey every gauge, and bring each site online.

1. County-wide Network Design Phase

We start from the data that shows where water causes problems, rank candidate locations, and bring the County a proposed map to approve. This is the same approach Hyfi used to build the New Orleans network, where we used over a decade of resident calls, inundation models, and County priorities to design sensor coverage that minimizes the number of sensors required while maximizing information.

1. **Confirm goals.** A kickoff with County staff confirms priority areas and the decisions the data must support for Emergency Management, Water Quality, Public Works, or other relevant parties.
2. **Analyze the County's data.** We bring together the inputs that reveal flood-prone areas. This can include, but is not limited to County GIS layers, emergency calls, resident complaints, and reported-flooding history, old reports, drainage model results, existing gauges, evacuation routes, and critical facilities.
3. **Rank candidate sites.** Hyfi applies its optimal sensor-placement method, which maximizes the information value of each location rather than simply covering area. It accounts for the drainage network and the specific questions each department needs answered.
4. **Propose a sensor map.** We deliver a proposed map of Phase 1 priority sites and Phase 2 candidates and review it with the County.
5. **Walk the sites.** Field reconnaissance confirms mounting structures, access, cellular coverage, and survey control, and flags any permitting or right-of-way needs for the County to direct.
6. **County approves.** The County reviews and approves the map and the site design package for each location before any installation begins.

Deliverable. A County-approved sensor map and a site design package for each location



Example optimal sensor placement map, generated for city of New Orleans. Inputs included resident reports, 311 calls, hydraulic models, GIS, and city input.

2. Construction Phase

With the map approved, Hyfi self-performs the deployment and coordinates any permitting. We build the highest-priority sites first, so the data the County needs most comes online early.

1. **Install Phase 1 first.** Crews deploy the approved priority sites, proving out workflows with County staff before scaling to the full network.
2. **Commission each site.** We verify end to end that the sensor reports, data reaches the platform, diagnostics are healthy, and alerts are configured.
3. **Survey to NAVD88.** McKim & Creed ties each gauge to NAVD88 at First-order, Class II accuracy or better using RTK GNSS, within 30 days of installation, and delivers the survey record and as-builts.
4. **Go live.** Each site moves straight into operations as it is finished, so the County receives usable data without waiting for the whole network.

Deliverable. Installed, surveyed, and commissioned sites, live on the platform with alerts configured.



Example: Surveying, to deployment, to operations. Field proven across 500+ sites and severe weather.

Operations handoff & collaboration, and long-term maintenance

As each site goes live it enters the five-year managed service: monitoring, maintenance, QA/QC, storm-mode operation, and support. The same Project Manager and team carry it through, so knowledge of the County's sites stays in place. The hardware is simple to maintain. Routine field work, including visual and debris checks, mounting, and swapping a sensor, needs a screwdriver and a few minutes, with no specialized tools or technicians. The RFP notes the County can provide limited assistance with hardware diagnosis and replacement, and Hyfi offers an opt-in, tiered model built on that simplicity. McKim & Creed can also handle routine site inspections, sensor swaps, and post-storm condition checks.



Hyfi sensors can be swapped in as little as one minute with a screwdriver.

Over the long run we can train County staff to operate and maintain it themselves, up to full DIY ownership if the County decides that makes sense after five years. County staff can run quick visual checks and swap a sensor from a Hyfi-supplied spares kit. Hyfi provides the training, a step-by-step checklist, and the kit. Hyfi will leave spare units with the County to keep internal, so a replacement is on hand when the situation calls for it. Hyfi handles the rest for as long as the County wants: diagnostics, calibration, datum integrity, QA/QC, corrective repair, and storm response. The model is easy to scale up, pull back, or hand off.

As the network grows toward 30 sites or sites are relocated, each change follows the same path: data review, proposed location, County approval, installation, and survey. The Project Manager confirms scope and schedule with the County before any work proceeds.



Section III. Previous Experience of the Team Proposed for This Project

The personnel proposed for this contract have designed, installed, and operated hundreds of real-time water level and flood-monitoring networks across the Gulf Coast, the Great Lakes, and the Northeast Atlantic coast. Our approach is based on direct experience, spanning 500+ sites and six years of operation. The same experienced team who performed the work below are the people assigned to Charlotte County. The projects most relevant to this RFP are summarized here, with additional detail and references in Section VI.

AT A GLANCE, 500+ sites reporting since 2020

New Orleans, LA: Gulf Coast hurricane performance and emergency-management alerting for 350,000+ residents.

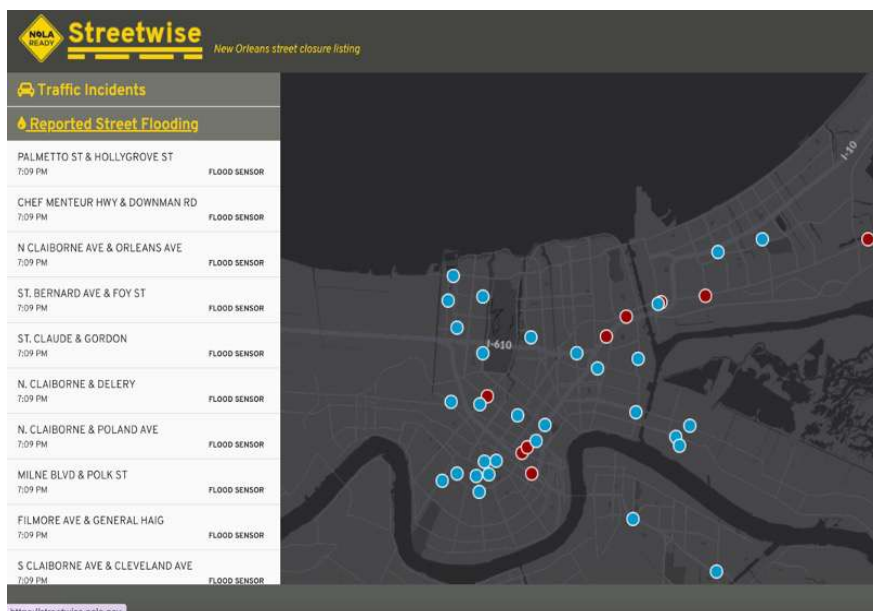
Southeast Michigan: riverine and urban-stormwater flooding, real-time road and underpass closures, and logjam detection, part of a 150+ sensor statewide network.

Atlantic Coast & Charlotte Harbor, FL: Hyfi tide and storm-surge sensors in Charlotte County today, plus coastal work up the eastern seaboard, including with the U.S. Fish & Wildlife Service.

New Orleans, Louisiana

In New Orleans, Hyfi runs a 50-sensor flood network built with Verizon Frontline. The sensors feed the City's emergency managers and push public alerts to about 350,000 residents through the Streetwise app. In a typical storm a sensor sees water rising more than an hour before the first 911 call. The network warns early and maps where the water will reach homes, and it is starting to push alerts straight to drivers. New Orleans is the closest match in this proposal to what Charlotte County deals with, a low, flat Gulf Coast city that floods from both rain and surge, watched by the same sensors and software we are proposing here.

1 hr+ warning before 911 calls	57% floods caught where no one called in	350K+ residents reached	100% sensors survived Hurricane Francine
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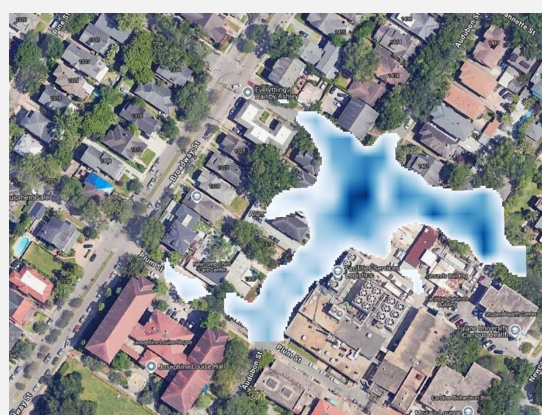
Real-time flood-detection analysis across the New Orleans network: sensors, detections, and early-warning shared on a public portal.

Through Hurricane Francine. The storm brought 80 mph gusts and six to eight inches of rain. Every sensor in the ground stayed up and kept reporting, through the storm and for weeks after. By the next morning Hyfi had property-level flood-impact reports ready, and the city set its recovery priorities without sending a truck out during the storm.

And even when it doesn't rain. In March 2026 the sensors picked up 7.25 inches of standing water from a water-main break on Audubon Street, which the city later confirmed. Normally a leak that size is not caught until a resident reports it.

"It is crucial that our emergency responders and residents have access to the timely information needed to make informed decisions. Hyfi's flood sensor data and its integration with Streetwise will aid us greatly in our ability to prioritize public safety during weather events."

Collin Arnold, Director, New Orleans Homeland Security & Emergency Preparedness



Sensor-derived flood map, Audubon Street water-main break.

Southeast Michigan

Dearborn sits at the bottom of the Rouge River watershed, one of the most flood-prone systems in Michigan. Hyfi runs more than 30 sensors there, seven of them on the Rouge. Public Works uses the live readings to close roads and underpasses before they turn dangerous, and to catch logjams while they are still forming. After crews cleared debris the sensors had flagged, the next storm of the same size came through with peak river levels 40 percent lower and the water draining 70 percent faster. This is the river-and-roads half of Charlotte County's job, the Peace and Myakka and the underpasses that close when they flood. Dearborn's public works director is one of our references.

40% lower peak river levels after clearance	70% faster flood recession	30+ sensors in Dearborn (7 on the Rouge)	150+ Hyfi sensors across Michigan
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A Hyfi sensor watches a flooded Dearborn underpass, driving road-closure calls.

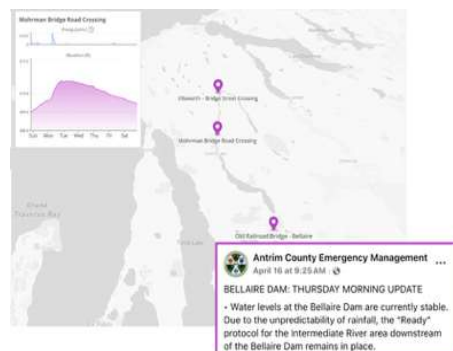
"I was raving about you to the Mayor's office. It would have been such an inconvenience to the public if I had to shut down this bridge. As a testament to what the service can do, you avoided the closure, because I had data that could prove it to the State."

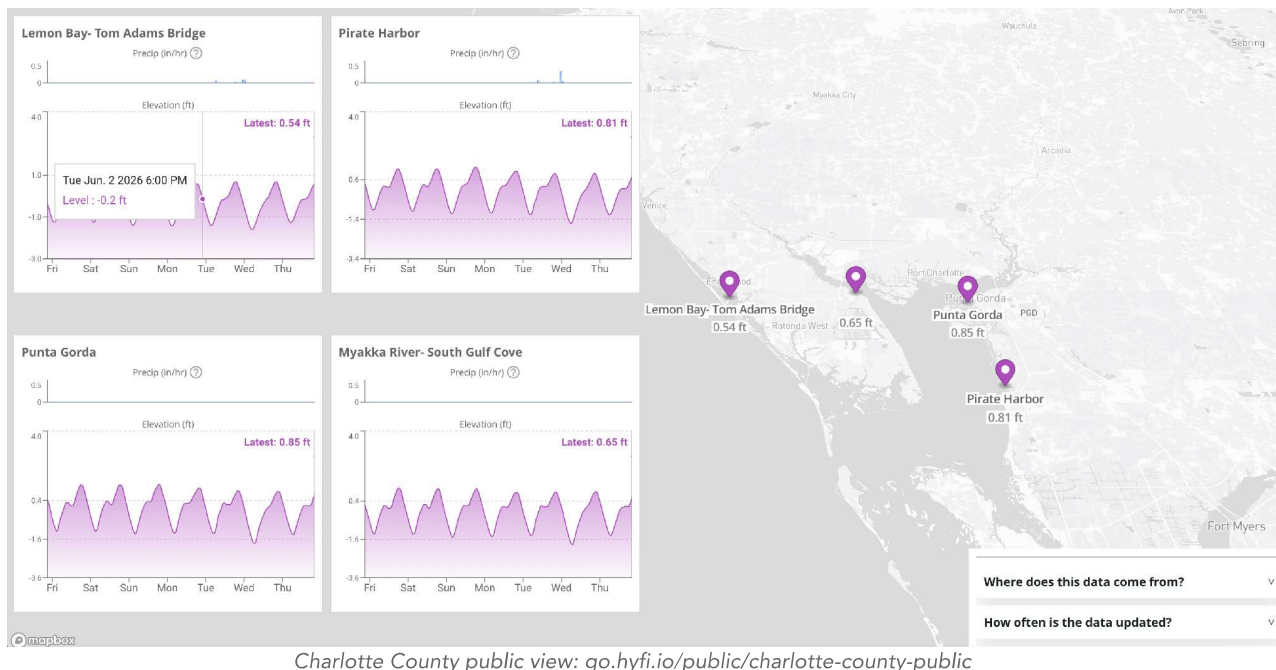
Tim Hawkins, Director of Public Works, City of Dearborn

Across the state, and the coast. Elsewhere in Michigan, Hyfi gave Antrim County operators real-time warning during a 2026 dam emergency and tracks how Detroit's green-infrastructure projects actually perform. On the Atlantic side, the team runs coastal sensors up the eastern seaboard, including work with the U.S. Fish & Wildlife Service.

Charlotte Harbor, Florida

Hyfi already has tide and storm-surge sensors running in Charlotte Harbor. We know the County's tides, the access at each site, the cell coverage, and how these waters behave in a storm. That means this contract starts from a network that already works, not from a blank map. The live public view is at go.hyfi.io/public/charlotte-county-public.





Section IV. Project Control

There is no fixed deployment deadline in the RFP, so Hyfi sets the schedule with the County at kickoff and then holds to it. The plan below is concrete but built to flex: priority sites will be deployed first, the rest in agreed phases with an accountable Project Manager. Because Hyfi builds and stocks its own sensors, the field never waits on hardware, and high-priority sites can begin deploying as soon as the contract is executed.

AT A GLANCE

A. Schedule & techniques: a phased rollout tracked against four milestones per site (verification, install, survey, platform) with a weekly County check-in.

Flexible and fast: dates are set with the County, not dictated. Priority sites can deploy immediately on notice to proceed, and in-house manufacturing means no waiting on hardware.

B. Risk: six likely risks, each with a specific mitigation, from site access to cellular coverage.

Delays handled: we have run storm response and field fixes on live networks, and keep the County informed in plain terms before you have to ask.

Workload: strong capacity for up to 30 sites plus five years of operations without straining current commitments.



A. Schedule, Milestones, and Responsibility

Every site is individually designed but shares a common approach. The sensor is mounted on a stable existing structure, a bridge, seawall, pier, culvert, headwall, or pole, positioned above the maximum expected water level and aimed down at the water surface. The sensor is paired with a solar panel and battery for power independence, a cellular modem for data transmission, and a weatherproof enclosure rated for the marine environment.

Hyfi adapts this approach to each setting in the County: on tidal and coastal sites, marine-grade mounts on seawalls, piers, and bridges set high enough to clear surge and read through wave action; on riverine sites, bridge or bank mounts placed to read low flow through flood stage and to stay clear of debris; on urban stormwater sites, mounts at culverts, outfalls, canals, and retention structures sized for confined channels.

Site selection favors structures with a clear view of the water, reliable cellular coverage, sun for solar power, and safe maintenance access while ensuring consistent operation across very different sites. The schedule below is illustrative. Exact dates are set with the County at kickoff, but it shows the shape of the rollout and how quickly the first data arrives.

Phase	Typical timing	What happens
Kickoff & design	Weeks 1–3	Confirm priorities, analyze County data, deliver the proposed sensor map, County approves each site package
Phase 1, priority sites	Immediately on notice to proceed, within a month if needed	Highest-priority sites first; install and survey run as one coordinated sweep, and a site delivers data the day it is commissioned
Build-out	Following weeks	Remaining standard sites, installed in County priority order
Permitted / complex sites	As access allows	Sites needing permitting, complex mounting, or seasonal access, sequenced so they never hold up ready sites
Operations	Ongoing, 5-year term	Each site enters the managed service as it goes live

Every site is tracked against the four milestones the County named. Installed sites move straight into operation, so the County sees data from the first sites while later phases are still being built.

Milestone	What it confirms	Responsible
Site verification	Reconnaissance complete and the site design package (sensor, mounting, power, comms, survey plan) approved by the County	Technical Lead (Brandon Wong) & Field Ops (Jacob Smith)
Installation	Sensor, mounting, solar, enclosure, and cellular comms installed per the approved design	Field Operations (Jacob Smith)
Surveying	Gauge tied to NAVD88 at First-order, Class II or better; survey record delivered	Survey sub-consultant (McKim & Creed)



Milestone	What it confirms	Responsible
Platform configuration	Site live on the platform with maps, alerts, and County access, acceptance-tested	Data Platform (Ariel Roy)

B. Deployment Timeframes and Risk Management

To complete installation and NAVD88 survey for the initial sites within the County's timeframe, Hyfi runs install and survey as one coordinated sweep and schedules the County's priority sites first. With sensors in stock, Phase 1 can begin as soon as the contract is executed. Once the site list and target dates are set, Hyfi commits to a site-by-site schedule. Hyfi has mobilized 50 sensor networks within a matter of weeks and can move quickly if requested.

Key risk	Hyfi's mitigation
Site access and right-of-way	Access needs are identified per site during design. Hyfi coordinates early with the County, which directs site selection and legal access, and sequences installs around access readiness.
Permitting delays	Permitting is flagged site by site during design and pursued early, and sites with longer permitting paths are scheduled so they never hold up sites that are ready to build.
Equipment or supply chain	Hyfi designs and manufactures its own sensors and keeps a ready inventory, so deployment is not gated by lead times. Spares are on hand for both rollout and swaps.
Cellular coverage	Coverage is checked at each site during reconnaissance, but it cannot always be known until a sensor is live. If a site reports weak or sub-par performance, Hyfi swaps the carrier, antenna, or mounting and confirms a reliable connection.
Hurricane season and weather	Crews stage materials early, sequence sites against short-term forecasts, and can secure or stand up a site quickly.
Survey control and datum integrity	McKim & Creed plans NAVD88 control from NGS benchmarks during design, and survey records are reviewed before they enter County records, so datum issues are caught early.

Handling delays and field problems. Hyfi runs multi-site networks every day and treats field problems as routine, managed work. When a new site comes up with a weak cellular signal, the crew swaps the carrier or antenna and confirms the connection before leaving. When a storm is forecast, the network shifts into storm mode and the County is briefed before landfall. Either way the pattern is the same: the Project Manager tells the County what happened, what it affects, and the recovery plan, in plain terms, so no one is surprised.

C. Recent, Current, and Projected Workload

Operating networks at scale is Hyfi's core business, and the company has the field staff, manufacturing, and platform capacity to add Charlotte County without straining existing work.

Capacity factor	Status
Active networks under management	Several hundred monitoring sites nationwide
Manufacturing	In-house sensor production, made in the USA, with ready spare inventory, so the field never waits on hardware
Local survey support	McKim & Creed crews from Sarasota and Fort Myers offices, close to Charlotte County for routine and post-storm survey work
This contract	Key personnel assigned with this workload in mind; capacity for up to 30+ sites and five years of operations without straining current commitments

Section V. Proposed Design Approach for This Project

AT A GLANCE

A. Installation: one non-contact, above-water approach across all site types in the County.

B. Sensor selection: both radar and acoustic, designed and built in-house and chosen per site on technical merit.

C. Storm resilience and access: mounting engineered to 140+ mph, solar and battery power, and deck-level service with no in-water work.

D. Survey and datum: NAVD88, First-order Class II or better, with Florida-licensed survey by McKim & Creed.

E. Data platform and API: real-time visualization, RESTful API, role-based access, and configurable multi-level alerts, with the County owning all data.

Hyfi's design approach is built around sensors that sit above the water and read down at the surface. Our latest generation of radar sensors can also be deployed below ground, mounted below manhole covers to measure water levels in stormwater conveyance systems. Most recently, we also launched sensors that measure shallow groundwater levels, including green infrastructure and infiltration basins, which provides a crucial dataset for calibrating water models. Mounting above the water reduces fouling and debris damage, makes installation and maintenance safer, and lets the same basic approach work across

shoreline, tidal, riverine, and urban stormwater sites. Because Hyfi designs and manufactures both its radar and its acoustic sensors and maintains a ready inventory in stock, the design of each site is driven by what the site needs, not technology.



Coastal



Bridge



Streets



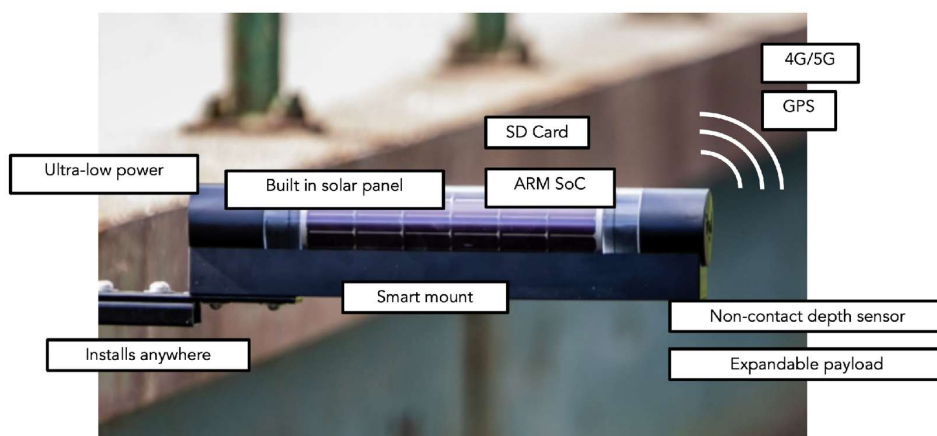
In pipe



Green Infrastructure

Example Hyfi Site Types.

RFP requirement	Minimum	Hyfi	Meets
Measurement	Non-contact radar or ultrasonic	Radar or ultrasonic, both in-house	Yes
Accuracy	±2.5 cm or better	±1 cm (survey-tied gauge)	Exceed
Resolution	1 mm or better	1 mm	Yes
Measurement range	0.5–10 m	0.1–30 m+	Exceed
Sampling interval	5 s – 10 min	1s +	Exceeds
Transmission	Hourly; 15 min storms	Hourly; 5 min storm mode	Exceeds
Operating temperature	–20 to +60 °C	Automotive/military grade	Yes
Environmental rating	IP67 or better	IP67 marine-grade	Yes
Wind resistance	100 mph (140+ critical)	Mounting engineered to 140+ mph	Yes
Connectivity	4G + 3G/2G; satellite pref.	5G Verizon frontline priority access + 3/2G fallback; satellite where needed	Exceeds
Power	Solar + battery	Solar + battery; 1 yr+ on battery alone	Exceeds



All in one package. Sensing, connectivity, power.

A. Overall Installation Approach

Every site is individually designed to ensure function during extreme events and hurricane strength winds. Where feasible, the sensor is mounted on a stable structure, bridge, seawall, pier, culvert, headwall, or pole, positioned above the maximum expected water level and aimed down at the water surface. The sensor is paired with a solar panel and battery for power independence, a cellular modem for data transmission, and a weatherproof enclosure rated for the marine environment. Hyfi supports a variety of mounts, each custom-designed to withstand 140+ mph hurricane conditions. The right mount depends on the site:

- **Mount, strap, or clamp to concrete or an existing structure** (seawall, bridge, pier, culvert, or headwall) wherever feasible, the fastest, most robust option, and what we already use in Charlotte Harbor.
- **Deep pole mounts for remote or standalone sites** with no nearby structure.
- **In-pipe and in-ground monitors** for sites where sub-surface water levels are required. This includes assets such as infiltration basis, green infrastructure, catch basins, manholes and pipes.



Drilled into Concrete



Strapped to bridge/crossing



Pole Mounted

Example mount types.

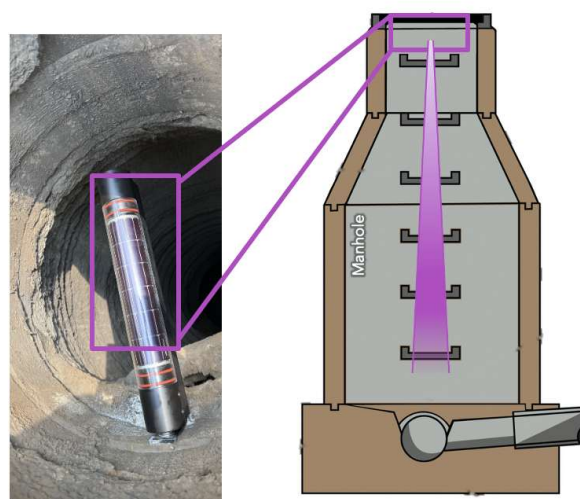
B. Sensor Selection: Radar and Acoustic

Hyfi manufactures both acoustic and radar sensors. Hyfi selects the sensor for each site on technical merit, at no change in cost, based on measurement range, surface conditions, mounting geometry, and environmental exposure:

- **Ultrasonic sensors** are an accurate choice for shorter measurement ranges and more sheltered conditions, such as culverts and calm channels. Hyfi compensates for temperature effects so readings stay accurate across the day.
- **Radar sensors** measure across a wide range and are largely unaffected by air temperature, humidity, wind, and fog. They perform well over open water with waves and over long mounting distances, which suits many tidal, coastal, and open-river sites. We have found radar sensors to also be more reliable for sub-surface measurements, such as manholes.



New Groundwater or Green Infrastructure Sensors



Below ground manhole, pipe and catch basin sensors

New modalities offered by Hyfi, infiltration, groundwater, green infrastructure below ground.

C. Resilience to Storms and Accessibility for Maintenance

Hyfi designs for a network that keeps working through the very events it exists to monitor. Each site carries its own solar and battery power, so it keeps operating and reporting through grid outages during and after a storm. Sensors are designed to report for over one year without solar on battery power alone. During tropical events the network shifts into an adaptive sampling mode that increases how often sensors sample and transmit, so the data is densest when the County needs it most. Adaptive sampling protocols can be changed remotely by Hyfi. As a standard pre-storm procedure Hyfi raises sampling and transmission frequency across the network as forecasted storms approach, verifies cellular and platform health.

Mounting and structural design. Mounting is engineered to withstand high wind loads, drawing on Hyfi's experience deploying in hurricane zones.



Accessibility for maintenance. Mounts are positioned so a technician services the unit from a bridge deck, seawall cap, or bank, no boat, no lift, and no in-water or confined-space entry, which keeps crews safe and visits short. The sensor, modem, power, and enclosure are modular and connect with standard fittings, so a field tech swaps a component in a single visit rather than rebuilding the installation, and we keep spare units on hand so a failed sensor can be replaced same-trip. The result is high uptime and predictable, low maintenance cost over the life of the network.

D. Florida Licensed Surveying and Vertical Datum Control

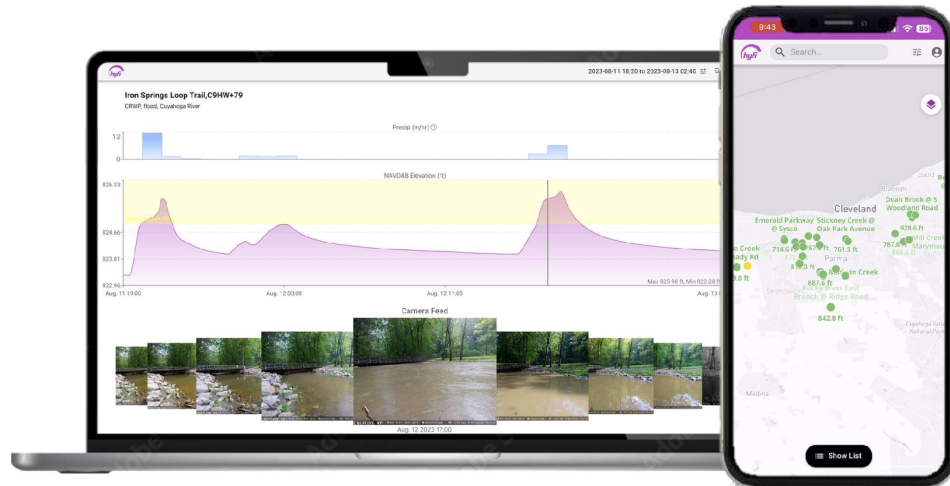
Every monitoring location in this network is surveyed to the North American Vertical Datum of 1988 (NAVD88) at First-order, Class II accuracy or better, performed and certified by **McKim & Creed's Florida-licensed Professional Surveyor and Mapper**. Survey is completed within 30 days of sensor installation at each site so the data record is referenced to NAVD88 from day one. The sensors report water surface elevation referenced to that datum, and once a gauge is tied to precise survey control its readings carry an absolute vertical accuracy on the order of 2.5 centimeters.

Methods and procedures. Vertical control is established from published National Geodetic Survey (NGS) benchmarks using differential leveling, and, where appropriate, RTK GNSS observations applied with the current NGS geoid model so that ellipsoid heights are correctly converted to NAVD88 orthometric elevations. At each site the sensor's reference point is tied to the datum and a stable on-site reference mark is established, so the gauge can be checked and re-verified over time.

Documenting and managing control over the contract. Hyfi keeps a survey record per site (benchmarks, procedure, accuracy, and the sensor-to-datum relationship) plus a stable on-site reference mark. Control is re-checked after any disturbance or major storm, and datum changes are managed as documented updates so the long-term record stays consistent.

E. Data Platform, API, and Visualization

Hyfi delivers data through its own cloud platform and API at no additional cost, or into a County-selected platform via the API.



Hyfi platform on laptop and mobile. Public-facing view live at go.hyfi.io/public/charlotte-county-public.

Data management and visualization

Hyfi's data platform supports all of the following capabilities:

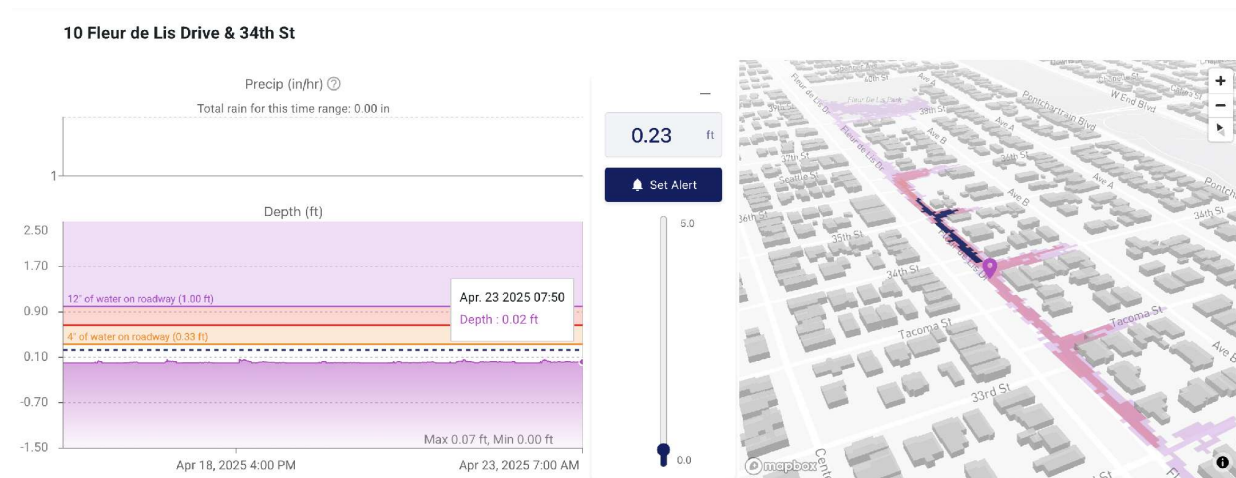
- **Real-time display:** Live data visualization of current water levels and recent trends at every site, with automatic updates (no manual refresh required).
- **Interactive mapping:** Web map of all monitoring locations showing current readings, alert status, and metadata, color-coded by status and alert level.
- **Time-series graphing:** Customizable graphs with zoom, pan, and date-range selection, plus multi-site comparison and review of historical events.
- **Multi-user access:** Access for Emergency Management, Water Quality, Public Works, and other County departments and staff.
- **Role-based permissions:** Configurable access levels so administrators, operators, and view-only users each see the appropriate tools.
- **Integrated weather and rainfall data:** Storms can be tracked alongside water levels.
- **Optional GIS layers:** Parcels, drainage basins, evacuation zones, and County asset layers overlaid on the network map.
- **Public-facing view:** A simplified residents-facing view the County can share, like the Charlotte County view and Hyfi's contribution to the City of New Orleans Streetwise platform.
- **Mobile compatibility:** Responsive design for smartphones and tablets, or dedicated iOS/Android mobile applications.
- **Threshold alerts:** User-defined water level thresholds that trigger automated notifications.
- **Multiple thresholds:** Support for multiple alert levels per site (e.g., advisory, warning, critical).
- **Notification methods:** SMS text messages, email, and/or in-platform alerts.
- **Alert recipients:** Configurable distribution lists with unlimited recipients.
- **Alert escalation:** Automatic escalation for critical thresholds or unacknowledged alerts.
- **Storm mode:** Enhanced monitoring and alert frequency during named storms and hurricane events.
- **Uptime guarantee:** Platform availability of 99.5% or greater, excluding scheduled maintenance.

API capabilities

Hyfi's RESTful API (HTTPS, API-key authentication, documented with OpenAPI/Swagger) returns site metadata and water-level data (as depth or NAVD88 elevation) over any date range in JSON or CSV. The County has historical and real-time access at no cost for the life of the contract, owns all data, and receives the full archive in CSV/JSON on termination with no migration barriers.

Threshold alerts, storm mode, and storm-event sampling

Each site supports multiple alert levels (advisory, warning, critical) at site-specific elevations, delivered by SMS or email to configurable per-site recipients with escalation for unacknowledged critical alerts. During storms the network shifts into storm mode, sampling and transmitting at short intervals; thresholds and events can also feed an existing County system via the API.



Example alerting features and corresponding flood maps.

F. Optional Advanced Analytics (including tidal forecasting)

- **Tidal analytics** -- Hyfi has recently introduced a new suite of tidal analytics, including tidal forecasting, and we are pleased to include it for Charlotte County at no additional cost. The centerpiece is tidal forecasting built on a harmonic analysis of each site's own record, which lets the County anticipate high-water and king-tide events before they arrive rather than only observing them as they happen. The same analysis produces site-specific tidal datums computed from County data, including mean higher high water, mean sea level, and mean lower low water, so elevations reported by the network are tied to the datums the County already works in. During storms, the platform separates the astronomical tide from the meteorological storm-surge residual, giving the County a clear read on how much of an elevated water level is surge for use in evacuation and recovery decisions.
- **Live Spatial Flood Maps** -- Real-time flood mapping engine calibrated to the local drainage network, producing validated inundation maps from live sensor data. Hyfi also can use these to flag impacted assets for targeted door knocking, confirming high water marks, and/or estimating impact to see if they qualify for FEMA dollars.
- **Proactive Response** -- AI-driven anomaly detection for clogs, debris jams, and surcharges, enabling proactive maintenance and early warning systems.

- **Rainfall-to-stage relationships and routing** – At urban stormwater sites Hyfi can correlate site-level rainfall (radar or rain-gauge data) with measured stage to inform routing and hydrologic-model calibration, supporting the flow rating curves the County uses for design and modeling.
- **Weather Dashboard** – a page in the Hyfi portal that overlays the weather forecast on your sensor map. Switch between 3-hour, 12-hour, and 7-day views to check precipitation, temperature, and wind, and watch storms develop in radar from six hours ago to six hours ahead.



Example of Hyfi's new tidal forecasting suite, being deployed on Atlantic tides.

Section VI. Examples of Recently Accomplished Similar Projects

AT A GLANCE

A: 500+ sites reporting: across the same settings Charlotte County deals with, using the sensors and platform proposed here.

B: 96%+ network uptime and real-time QAQC, Sensor survival through Hurricane Francine, with both automated and manual QAQC processes

C: Independently verified accuracy: R^2 0.975 against a co-located USGS gauge. Hyfi kept reporting when the federal gauge went offline.

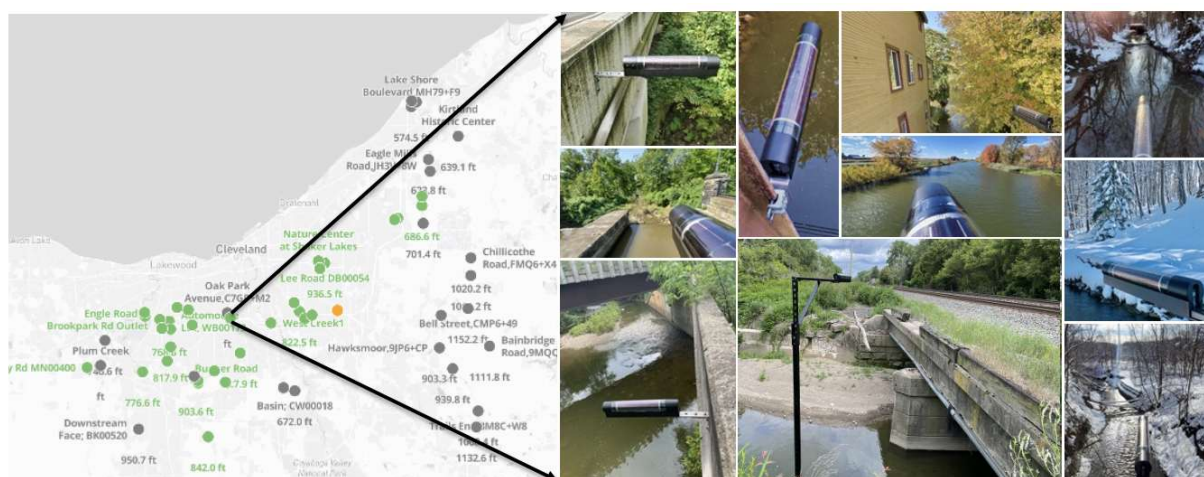
A. Similar Surface Water Elevation and Flood-Monitoring Networks

Hyfi has recently designed, installed, and operated multi-site surface water level and flood-monitoring networks for public agencies and government-backed initiatives. The table below summarizes the most relevant examples; each is an operating network delivered by the team proposed for this contract.

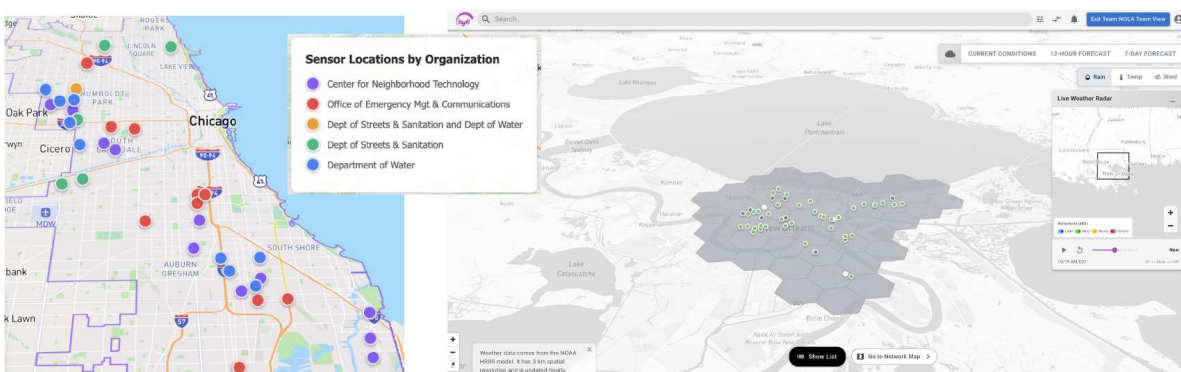
Example Project	Sites	Environments	Sensor tech	In operation
New Orleans, LA (City / Verizon Frontline)	50	Urban stormwater, flood-prone streets	Radar + Ultrasonic	Since 2023
Chicago, IL (City / Verizon Frontline)	50	Urban stormwater, streets and below ground	Radar + Ultrasonic	Since 2025
Charlotte Harbor, FL (Charlotte County)	4	Coastal, tidal	Ultrasonic	Since 2024
Northeast Ohio Regional Sewer District (Cleveland)	60	Urban stormwater, combined sewer	Radar + Ultrasonic	Since 2020
US Fish and Wildlife Service	20	Coastal, tidal	Radar + Ultrasonic	Since 2020
Dearborn, MI	30+	Roads, below ground, river	Radar + Ultrasonic	Since 2022



16 States, 500+ sites, since 2020, rural to urban, above ground, below ground, coastal to conveyance



60 locations along streams, culverts, and basins in Metro Cleveland since 2020



50 Chicago sites: 35 roads, 9 underground, 6 river

50 New Orleans sites: 40 transportation crossings, 5 underground, 5 canals



Snapshot of Fish and Wildlife sites in New York showing tidal tracking

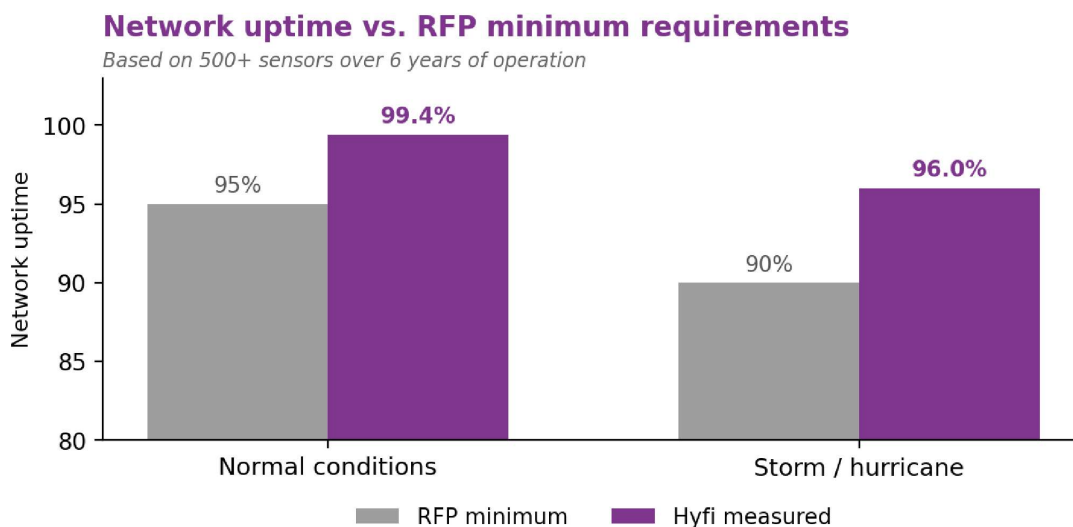
Together these projects cover a full range of environments using the same radar and acoustic sensors and the same data platform proposed. Several have been in continuous operation long enough to demonstrate sustained reliability, and the New Orleans network in particular shows performance under Gulf Coast hurricane conditions.

B. Uptime, Reliability, and QA/QC Track Record

Hyfi operates monitoring networks as a managed service and is measured on uptime and data quality every day. In normal, non-storm conditions Hyfi's networks consistently sustain high availability, and the network is engineered specifically so that availability holds up during the tropical storm and hurricane events when the data matters most: independent solar power, cellular communications, non-contact sensors with no in-water failure points, and storm-mode operation. Hyfi commits to meeting or exceeding the uptime levels required by this RFP, in both normal and storm conditions, and to reporting measured uptime to the County.

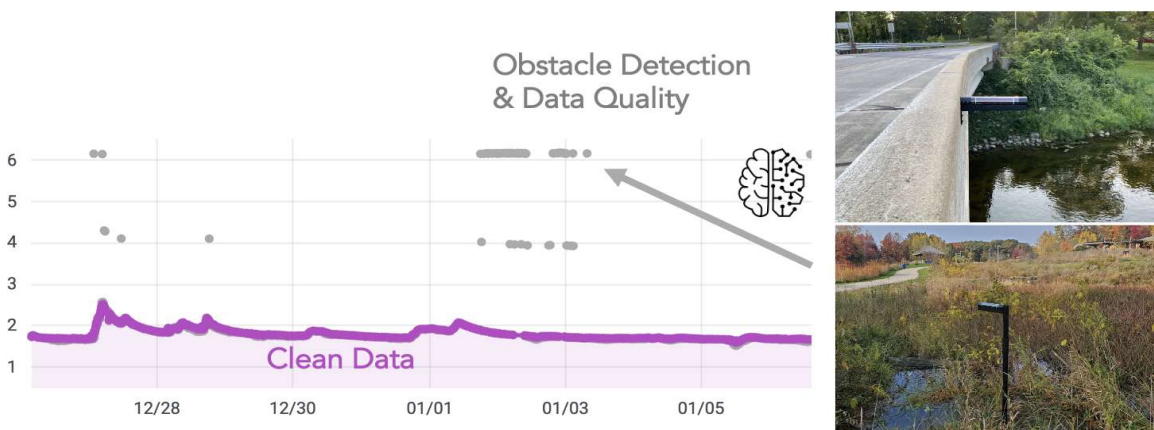
Demonstrated storm performance and accuracy. Hyfi's storm reliability has been demonstrated in the field, not just engineered for. During Hurricane Francine in 2024, every Hyfi sensor then deployed in New Orleans kept operating through hurricane-force winds and heavy rainfall without damage and continued

reporting throughout the recovery period, with sensor data reaching Hyfi's servers in under ten seconds on average. Hyfi's accuracy has also been measured against federal gauges: in an independent co-located comparison with a U.S. Geological Survey gauge, Hyfi water levels matched the federal record with a coefficient of determination of 0.975, and the Hyfi sensor kept reporting through a period when the federal contact-based gauge went offline. Hyfi's automated quality control has reduced false alerts and measurement noise on the New Orleans network by roughly 95 percent.



Hyfi network uptime vs. the RFP minimum requirements (normal and storm conditions).

QA/QC framework. Hyfi applies a structured quality-control framework to every network, aligned with the principles of the QARTOD program (Quality Assurance / Quality Control of Real-Time Oceanographic Data) used for coastal water level data. Automated tests screen incoming data, every reading carries a quality flag, and Hyfi shows data quality to end users openly, so County staff always know how much confidence to place in each value. The full QA/QC and diagnostics approach is described in Section VII.C.



Example QAQC outlier flagging and removal.

Section VII. Experience and Capabilities

AT A GLANCE

A. Continuous monitoring operations & network management: Hyfi watches water level, comms, and power health 24/7 with a defined internal escalation path; all cellular connectivity, data plans, and over-the-air configuration are managed by Hyfi, with nothing for the County to administer.

B. Maintenance, field response & equipment management: Preventive inspections plus priority corrective response; spare equipment from Hyfi's own manufacturing means units are swapped without waiting on a supplier, with storm damage and vandalism handled under the agreement.

C. Data QA/QC & diagnostics: Automated range, rate-of-change, flat-line, and ML tests with manual review; raw and corrected data retained, documented, and flagged for end users; sensor, battery, and communication health reported to the County.

D. Technical support, training & coordination: Help desk with extended availability during storms; end-user training on the platform, data, and alert configuration; and PM-led quarterly performance reviews across the five-year term.

A. Continuous Monitoring Operations and Network Management

Hyfi watches network health continuously. Every site reports water level plus diagnostics for sensor, communications, and power. Anomalies follow the escalation path below, and sampling, thresholds, and storm-mode behavior are all configurable over the air.

Stage	Action
1. Detect	Automated detection of a sensor, communications, or power anomaly
2. Triage	Hyfi staff review and classify severity
3. Remote fix	Reconfigure or resolve over the air wherever possible
4. Dispatch	Field visit on a priority basis if a remote fix is insufficient
5. Notify	PM informed; County notified for anything affecting data availability

Connectivity and remote configuration. Hyfi manages multiple cellular plans for each site. We support all major carriers, with backup procedures in place if one carrier goes out. Furthermore, Hyfi is Verizon Frontline Certified, which means that our devices have priority access and can connect to their mobile cell trucks during and after disasters.





B. Maintenance, Field Response, and Equipment Management

Corrective maintenance and field response. Hyfi responds on the priority basis shown above. Spare sensors and components are on hand from Hyfi's own manufacturing, so a unit is swapped without waiting on a supplier; storm damage and vandalism are handled under the service agreement.

Preventive activity	Frequency	What it covers
Site inspection	Scheduled and opportunistic during routine site visits	Sensor mounting, debris/obstruction, enclosure integrity, site condition
Power system check	Each site visit and remote daily	Battery state of charge and solar output; replacement of power components as needed
Structural / mounting inspection	Annual and post-storm	Mount, hardware, and clearances re-verified; re-survey triggered if a mount is disturbed
Remote health monitoring	Continuous (24/7)	Sensor reporting, communications, and diagnostics; proactive alerts when a site degrades

C. Data QA/QC and Diagnostics

Data quality is managed continuously, not just at installation. Incoming data passes the automated tests below; flagged readings are reviewed by Hyfi staff, and both raw and corrected data are retained and documented. Before any reading is published, it passes through a multi-step processing pipeline. Hyfi first applies environmental-variable correction, adjusting raw measurements for conditions such as temperature. The corrected series then runs through layered outlier analysis: rule-based screening removes physically implausible values, changepoint detection identifies abrupt shifts that signal sensor drift or a physical change at the site, and a machine-learning model trained on Hyfi's network history flags subtler anomalies that fixed thresholds miss. Validated data is then conditioned with Gaussian moving-average smoothing to suppress high-frequency noise while preserving real hydrologic signal. Each step is logged, and both the raw and the processed series are retained so any correction can be traced and reviewed.

Automated test	Catches	Result
Range	Readings outside physically plausible limits	Flag + staff review
Rate-of-change	Unrealistic jumps between readings	Flag + staff review
Flat-line	A sensor that has stopped responding	Flag + diagnostics
ML / process-based	Compromised or drifting sensors, caught early	Flag + corrective action



Example Hyfi QA/QC steps

Alongside the water level data, Hyfi monitors sensor diagnostics, battery and solar charge state, communications status, and overall sensor health.

D. Technical Support, Training, and Coordination

Help desk and technical support. Hyfi support runs through the life of the contract, summarized below.

Service	Detail
Help desk	Phone & email, business hours (8–5 ET, M–F); extended availability during tropical storm/hurricane events
Response time	On-site within 72 hours for critical events; within 14 business days for non-critical issues.
Training	Recorded tutorials and reference materials plus live sessions per department; refreshers as staff change
Quarterly reviews	PM-led reviews of uptime and data quality; venue for proposing added/relocated sites and platform enhancements

Bonus - on premise units for critical events: For time-sensitive needs at critical sites, Hyfi supplies a spare sensor and trains County staff to swap it, consistent with the Collaborative Maintenance Model in Section II. These units sit in wireless charger cradles, and can be grabbed and swapped nearly instantly if the need emerges.



Training for County staff. Training covers reading maps and time series, retrieving data, configuring alerts, and using the API. Recorded tutorials plus live per-department sessions, with refreshers as staff change.

Performance reviews and continuous improvement. The Project Manager provides quarterly reviews of uptime and data quality and uses them to propose improvements like added or relocated sites, new alerts, or platform enhancements across the five-year term.

Section VIII. Volume of Work

Hyfi, LLC's payments from Charlotte County within the past 24 months total \$14,950 so it falls **within the \$0 to \$49,999 category.**

The County previously engaged Hyfi for the existing tide and storm-surge sensors operating in Charlotte Harbor; that work falls within this lowest-payment bracket and gives Hyfi established familiarity with County waters and processes.

Section IX. Location

Hyfi's headquarters are located in Ann Arbor, MI. McKim & Creed, located in Sarasota County, provides on-the-ground field and survey response.

Hyfi, LLC is headquartered in Ann Arbor, Michigan, with McKim & Creed as its Florida-licensed survey sub-consultant. Although Hyfi's headquarters is out of state, Hyfi already operates sensors in Charlotte County, so the team knows the County's sites and access conditions firsthand, and McKim & Creed provides on-the-ground field and survey response, including during and after storms, with spare equipment staged locally. Day-to-day network monitoring, QA/QC, alert management, and remote configuration run continuously from Hyfi's operations function, so most issues are detected and resolved remotely, giving the County both depth of capability and local responsiveness.

Section X. Litigation

Hyfi has **NOT** been named in any litigations or as a codefendant in any lawsuits in the last five years.

There are no case numbers, case names, or courts to report.

Insurance Compliance

Hyfi meets the insurance requirements set out in the RFP, including Commercial General Liability, Automobile Liability, Workers' Compensation, and Professional Liability at the limits specified. Certificates of Insurance and required endorsements will be furnished to the Charlotte County Purchasing Division prior to commencement of services, as required. McKim & Creed, as sub-consultant, will carry Professional Liability at the required levels and conditions.



Section XI. Minority Business

Hyfi, LLC is a self-reported Minority Business Enterprise (MBE) on SAM.gov. The Proposal Submittal Signature Form will reflect Yes (Non-Certified MBE) in this category. More details can be provided upon request.

References

The following reference lists are provided for Hyfi as prime and for McKim & Creed as sub-consultant.

Hyfi and Project Manager References

Reference and title	Project Location	Contact
Austin Feldbaum Office of Hazard Mitigation Director	New Orleans, LA	afeldbaum@nola.gov (504) 658-8740
Tim Hawkins Director of Public Works and Facilities	Dearborn, MI	thawkins@dearborn.gov (313) 680-5411
Jonah Saitz Biologist	U.S. Fish and Wildlife Service	jonah_saitz@fws.gov (401) 318 - 6917

Sub-Consultant References: McKim & Creed, Inc.

Reference and title	Project	Contact
William Delzer Representative, Faradiso, LLC	Mean High Water & Topographic Survey – Charlotte Harbor, Punta Gorda, FL	wdelzer@delzerlegal.com (810) 603-1000



Appendix A. Required Forms and Certifications

The Proposal Submittal Signature Form, including the Magnitude of Charlotte County Projects, any addenda acknowledgments, and any MBE certification documentation.

PROPOSAL SUBMITTAL SIGNATURE FORM

1.	Project Team Name and Title	Years experience	City of office individual will work out of for this project	City individual's office is normally located	City of individual's residence
	Brooke Mason, COO	12	Ann Arbor, MI	Ann Arbor, MI	Ann Arbor, MI
	Brandon P. Wong, CEO	12	Ann Arbor, MI	Ann Arbor, MI	Ann Arbor, MI
	Branko Kerkez, CTO	20	Ann Arbor, MI	Ann Arbor, MI	Ann Arbor, MI
	Jacob Smith, Field Operations Lead	10	Ann Arbor, MI	Ann Arbor, MI	Palmyra, MI
	Ariel Roy, Data Platform & API Lead	5	Ann Arbor, MI	Ann Arbor, MI	Ann Arbor, MI
	Jacqueline Buford, Hardware & Data Quality Lead	3	Ann Arbor, MI	Ann Arbor, MI	Ann Arbor, MI
2.	Magnitude of Company Operations				
	A) Total professional services fees received within last 24 months:			\$ 0.00	
	B) Number of similar projects started within last 24 months:			7	
	C) Largest single project to date:			\$ 673,413	
3.	Magnitude of Charlotte County Projects				
	A) Number of current or scheduled County Projects			1	
	B) Payments received from the County over the past 24 months (based upon executed contracts with the County).			\$14,950	
4.	Sub-Consultant(s) (if applicable)	Location	% of Work to be Provided	Services to be Provided	
	McKim & Creed, Inc.	Sarasota, FL & Fort Myers, FL	8%	Florida-licensed surveying to NAVD88 First-order, Class II; per-site survey deliverables and reference marks; local field support for installation and maintenance response across Southwest Florida.	
5.	Disclosure of interest or involvement: List below all private sector clients with whom you have an active pending contract and who have an interest within the areas affected by this project. Also, include any properties or interests held by your firm, or officers of your firm, within the areas affected by this project.				
	Firm	Address			
	Phone #	Contact Name			
	Start Date	Ending Date			
	Project Name/Description				

NAME OF FIRM Hyfi, LLC

(This form must be completed and returned)

The County will consider the firm's status as an MBE or a certified MBE, and also the status of any sub-contractors or sub-consultants proposed to be utilized by the firm, within the evaluation process.

Comments or Additional Information:

The undersigned attests to his/her authority to submit this proposal and to bind the firm herein named to perform as per contract, if the firm is awarded the Contract by the County. The undersigned further certifies that he/she has read the Request for Proposal, Terms and Conditions, Insurance Requirements and any other documentation relating to this request and this proposal is submitted with full knowledge and understanding of the requirements and time constraints noted herein.

By signing this form, the proposer hereby declares that this proposal is made without collusion with any other person or entity submitting a proposal pursuant to this RFP.

In accordance with section 287.135, Florida Statutes, the undersigned certifies that the company is not on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and does not have business operations in Cuba or Syria (if applicable) or the Scrutinized Companies that Boycott Israel List, or is not participating in a boycott of Israel.

As Addenda are considered binding as if contained in the original specifications, it is critical that the Consultant acknowledge receipt of same. The submittal may be considered void if receipt of an addendum is not acknowledged.

Addendum No.¹_____ Dated 5/21/26 Addendum No.³_____ Dated 6/3/26 Addendum No._____ Dated _____
Addendum No.²_____ Dated 6/1/26 Addendum No._____ Dated _____ Addendum No._____ Dated _____

Type of Organization (please check one):

INDIVIDUAL
CORPORATION

☐ PARTNERSHIP ☐
☒ JOINT VENTURE ☐

Hyfi, LLC

Firm Name

937-418-3426

Telephone

83-4573259

Hyfi

Fictitious or d/b/a Name

Federal Employer Identification Number (FEIN)

455 E Eisenhower Pkwy, Suite 300

Home Office Address

Ann Arbor, MI, 48108

6

City, State, Zip

Number of Years in Business

Address: Office Servicing Charlotte County, other than above

Brandon Moody, Water Quality and Resiliency Manager

941-743-1354

Name/Title of your Charlotte County Rep.

Telephone

Brandon P. Wong, CEO

Name/Title of Individual Binding Firm (Please Print)

June 9, 2026



Signature of Individual Binding Firm

Date

brandon@hyfi.io

Email Address

(This form must be completed & returned)

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that Hyfi, LLC
_____ does: (name of business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.



Proposer's Signature

June 9, 2026

Date

NAME OF FIRM Hyfi, LLC

(This form must be completed & returned)

for Nongovernmental Entities Pursuant To FS. §787.06

Charlotte County Contract #20260423

The undersigned on behalf of the entity listed below, (the "Nongovernmental Entity"), hereby attests under penalty of perjury as follows:

1. I am over the age of 18 and I have personal knowledge of the matters set forth except as otherwise set forth herein.
2. I am an officer or representative of the Nongovernmental Entity and authorized to provide this affidavit on the Company's behalf.
3. Nongovernmental Entity does not use coercion for labor or services as defined in Section 787.06, Florida Statutes.
4. This declaration is made pursuant to Section 92.525, Florida Statutes. I understand that making a false statement in this declaration may subject me to criminal penalties.

Under penalties of perjury, I declare that I have read the foregoing Human Trafficking Affidavit and that the facts stated in it are true.

Further Affiant sayeth naught.



Signature

Brandon P. Wong

Printed Name

CEO

Title

Hyfi, LLC

Nongovernmental Entity

June 9, 2026

Date

END OF PART IV

NAME OF FIRM Hyfi, LLC

(This form must be completed and returned)



Appendix B. Resumes of Key Personnel

Full resumes for Brooke Mason and each of the Hyfi key personnel named in Section I, plus the McKim & Creed lead Professional Surveyor and Mapper.

Brooke Mason

Project Manager

Chief Operating Officer

Hyfi, LLC

Education

Ph.D. 2023

University of Michigan
Civil & Environmental Engineering

M.S. 2022

University of Michigan
Electrical & Computer Engineering

M.S. 2018

University of Toledo
Civil Engineering

B.S. 2016

University of Toledo
Environmental Engineering

B.S. 2012

Bowling Green State University
Environmental Policy & Analysis

Contact

Hyfi, LLC
455 E. Eisenhower Pkwy, Suite 300
Ann Arbor, MI 48108
hyfi.io



Profile

Brooke Mason is the Chief Operating Officer at Hyfi, where she leads operations across all sectors, including field deployment, supply chain logistics, customer support, marketing, and financial planning. With advanced degrees in Electrical & Computer Engineering and Civil Engineering from the University of Michigan, she leads development of Hyfi's non-contact water-level sensors and oversees product deployment. Her leadership has been central to Hyfi's largest projects, including roughly 100 sensors across the New Orleans and Chicago flood-monitoring networks. During her Ph.D. she led one of the largest green-infrastructure sensor deployments in Detroit, partnering with local communities to measure flood risk and infrastructure performance. On this contract she serves as Project Manager and the County's single point of contact, accountable for schedule, deliverables, quarterly performance reviews, and coordination across Hyfi, the survey sub-consultant, and County departments.

Positions

- Chief Operating Officer, Hyfi — 2024–present
- Product Manager, Hyfi — 2023–2024
- Graduate Research Assistant, University of Michigan — 2018–2023
- Graduate Assistant, University of Toledo — 2017–2018
- Sustainability Specialist, University of Toledo — 2012–2015

Recognition

- Rackham Merit Fellowship (2018, 2022)
- Beyster Computational Innovation Graduate Fellowship (2021)
- Clean Water Science Network Presentation Award (2021)
- Edward A. Bouchet Graduate Honor Society (2020)
- DOW Sustainability Fellowship (2020)
- NSF Graduate Research Fellowship Program — Honorable Mention (2018)

Selected Publications

Mason, B., Schmidt, J., Kerkez, B. (2023). *Measuring city-scale green infrastructure drawdown dynamics using internet-connected sensors in Detroit*. *Environmental Science: Water Research & Technology*.

Mason, B. E., Mullapudi, A., Kerkez, B. (2021). *Stormreactor: an open-source Python package for integrated modeling of urban water quality and water balance*. *Environmental Modelling & Software*.

Brandon P. Wong

Principal-in-Charge & Technical Deployment Lead

**Co-Founder & Chief
Executive Officer**
Hyfi, LLC

Education

Ph.D. 2017

University of Michigan
Civil Engineering

M.S. 2016

University of Michigan
Electrical Engineering:
Systems

M.S. 2012

UC Berkeley
Civil Engineering

B.S. 2011

UC Berkeley
Civil Engineering

Contact

Hyfi, LLC
455 E. Eisenhower Pkwy,
Suite 300
Ann Arbor, MI 48108
hyfi.io



Profile

Dr. Brandon Wong is the Co-Founder and Chief Executive Officer of Hyfi, where he leads strategic direction, commercialization, and technology development, and is a co-founder of Open-Storm.org. He holds dual degrees in Computer Science and Civil Engineering from the University of Michigan and specializes in integrating sensing technologies, data analytics, and artificial intelligence to enhance water management. Under his leadership Hyfi has secured seven significant awards and grants, including the Verizon Climate Resilience Prize, recognizing Hyfi's contributions to resilient water management. On this contract he serves as Principal-in-Charge and Technical Deployment Lead, setting sensor selection, mounting, siting, and integration.

Positions

- Co-Founder & Chief Executive Officer, Hyfi — 2020–present
- Postdoctoral Researcher, University of Michigan — 2018–2019
- Graduate Student Researcher, University of Michigan — 2013–2017
- Graduate Student Researcher, UC Berkeley — 2012–2013
- Co-Founder, Open-Storm.org — 2016

Awards & Recognition

- Verizon Climate Resilience Prize (2022)
- NOAA Small Business Innovation Research (2024)
- NSF Small Business Innovation Research (2022)
- NSF I-Corps (2018)
- Great Lakes Protection Fund (2020)
- State of Michigan MiNextCities Award (2023)

Selected Publications

Wong, B., Kerkez, B. (2018). *Real-time control of urban headwater catchments through linear feedback: performance, analysis, and site selection*. *Water Resources Research*.

Bartos, M., Wong, B., Kerkez, B. (2018). *Open Storm: a complete framework for sensing and control of urban watersheds*. *Environmental Science: Water Research & Technology*.

Branko Kerkez

QA/QC Lead

Co-Founder & CTO, Hyfi, LLC

Arthur F. Thurnau Professor,
University of Michigan

Education

Ph.D. 2013

UC Berkeley
Civil & Environmental
Engineering

M.S. 2012

UC Berkeley
Electrical Engineering &
Computer Science

M.S. 2008

UC Berkeley
Civil & Environmental
Engineering

B.S. 2008

University of Florida
Civil Engineering

Contact

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Profile

Branko Kerkez is the Arthur F. Thurnau Professor of Civil & Environmental Engineering at the University of Michigan, where he directs the Digital Water Lab, and a co-founder of Hyfi. Internationally recognized in smart water systems, he has nearly 20 years applying wireless sensor networks to water, spanning real-time flood response, sensing, robotics, and control algorithms. He is the founder of Open-Storm.org, an open-source consortium for smart-water hardware, software, and case studies, and was recognized as a Gilbreth Lecturer by the U.S. National Academy of Engineering in 2018. On this contract he owns the QA/QC methodology and analytics approach, including machine-learning-assisted, process-based quality control for detecting compromised sensors.

Positions

- Co-Founder & CTO, Hyfi — 2020–present
- Professor, University of Michigan — 2019–present
- Associate Chair for Research, CEE, University of Michigan — 2023–present
- Assistant Professor, University of Michigan — 2013–2019
- Founder, Open-Storm.org — 2014–present

Awards & Recognition

- National Academy of Engineering Gilbreth Lecturer (2018)
- Arthur F. Thurnau Professorship (2021)
- NSF CAREER Award (2018)
- Verizon Climate Resilience Prize (2022)
- WEF/WRF Intelligent Water Challenge — Grand Prize (2018)
- ES&T Feature of the Year Paper Award (2017)

Selected Publications

Schmidt, J., Kerkez, B. (2023). Machine learning-assisted, process-based quality control for detecting compromised environmental sensors. *Environmental Science & Technology*.

Bartos, M., Kerkez, B. (2019). High-accuracy rainfall maps from connected-vehicle measurements. *Nature Scientific Reports*.

Ariel Roy, EIT

Data Platform & API Lead

Full-Stack Developer

Education

M.S. 2023

University of Michigan
Civil Engineering —
Intelligent Systems

B.S. 2021

University of Michigan
Civil Engineering —
Sustainable Eng.

Contact

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Engineer in Training (EIT)



Profile

Ariel Roy is a full-stack developer at Hyfi who builds the data portal, API, and quality-control pipeline that County staff use day to day. She holds an M.S. in Civil Engineering (Intelligent Systems) and a B.S. in Civil Engineering from the University of Michigan and is pursuing AWS Solutions Architect certification. On this contract she leads the data platform and API.

Experience

- Full-Stack Developer, Hyfi (2023–present): built Hyfi’s real-time data portal (React.js, Mapbox, GraphQL, InfluxDB on AWS) — from zero to first customer in four months.
- Manages quality control for 500+ real-time sensor streams; built an automated, asynchronous QC process that cut manual data cleaning by 30%.
- Wrote network-health monitoring scripts that improved response time to sensor outages; created SOPs for automated AWS Lambda deployment.
- Graduate Research Assistant, Digital Water Lab (2021–2023): built full-stack tools making stormwater models usable by operators in one of the world’s largest combined sewer-stormwater systems.
- Power Engineer Intern, Black & Veatch (2021); Engineer Intern, Whiting-Turner (2020).

Technical Skills

- Python, React.js, Amazon Web Services, Mapbox, GraphQL, InfluxDB, SWMM / PySWMM, GitHub

Selected Publications

Schmidt, J., Roy, A., Kerkez, B. (2024). “You can’t write down the logic”: bringing smart technology into the water infrastructure control room. *ACM*.

Jacqueline Buford

Hardware Integration & Data Quality Lead

Hardware Integration & Data Quality

Hyfi, LLC

Education

University of Michigan

B.S.E. 2025

Civil Engineering

Minors Computer Science &
Sustainable Engineering



Profile

Civil engineer focused on hardware integration and device-side data quality across Hyfi's sensor fleet, with a B.S.E. in Civil Engineering and minors in Computer Science and Sustainable Engineering from the University of Michigan.

Experience

- Hardware & Flood-Mapping Engineer, Hyfi (2024–present): built flood prediction and mapping integrating Hyfi sensor data with NOAA and USGS APIs (Python, GDAL), converting water depth to flow rate.
- Designed and built in-sensor wireless charging and a charging station (weeks to one hour); designed waterproof outdoor enclosures and sensor pole mounts; recreated a wireless-transmitter PCB (KiCad).
- Research Assistant, University of Michigan: models how flooding affects population mobility.

Technical Skills

- Python, C++, R, MATLAB; GDAL & QGIS; Fusion 360 / AutoCAD / Revit; PCB design (KiCad); 3D printing

Jacob Smith

Field Operations Lead

Field Operations Lead

Hyfi, LLC

Education

Full Sail University

B.A.Sc. 2023



Profile

Field operations leader for Hyfi's national sensor network, with 8+ years of field, inspection, and operations experience, including 2.5+ years of civil verification and field QC inspection in Tampa, Florida. Leads installation, commissioning, on-site RTK surveying, and preventive and corrective maintenance across hundreds of deployed sites nationwide. On this contract, runs field deployment, on-site survey coordination, and ongoing network maintenance for Charlotte County.

Experience

- Field Operations Lead, Hyfi (2023–present): Runs Hyfi's national field fleet: installation, commissioning, on-site RTK GNSS surveying, and preventive and corrective maintenance for the deployed sensor network.
- Has executed end-to-end network builds in New Orleans, Fort Wayne, and Chicago, including deployment planning, parts ordering, shipping logistics, install and on-site survey, database commissioning, and post-install verification.
- Manages the active sensor fleet across hundreds of deployment sites nationwide; daily network health monitoring; primary field-side liaison with customers across multiple states and agencies; coordinates annual resurveys.
- Field Technician, University of Michigan, Civil & Environmental Engineering: Sensor deployment field work supporting U-M's CEE research operations, similar in scope to Hyfi field deployments.
- Prior field roles: Verification Engineer, Keystone Civil (Tampa, FL); CEI Inspector, Jacobs; QC Inspector, Test Lab (Tampa, FL).



Taylor Henning, PSM

PROJECT SURVEYOR



LOCATION: SARASOTA, FL

EDUCATION

B.S., Geomatics,
University of Florida

LICENSURE

Professional Surveyor &
Mapper, FL #7279

Certified FAA Part 107
Remote Pilot

Maintenance of Traffic
(MOT) Intermediate
Level

Mr. Henning, Director of Surveying at McKim & Creed, oversees Southwest Florida operations and brings extensive experience in terrestrial, mobile, and aerial LiDAR data acquisition, point cloud registration, feature extraction, and QA/QC. He has supported a range of FDOT projects—including Design, RRR, Design-Build, and Concrete Rehabilitation—giving him a strong grasp of each discipline's unique requirements. Mr. Henning also has significant experience managing FDOT Subsurface Utility Engineering (SUE) projects. In addition to being a licensed Professional Surveyor and Mapper, he holds an FAA Part 107 Remote Pilot certification and has delivered UAS services across Florida.

► Project Experience

Mean High Water & Topographic Survey Charlotte Harbor, Punta Gorda,

Florida: McKim & Creed, Inc. completed a Mean High Water (MHW) and topographic survey along the shoreline of a parcel of land in Charlotte Harbor, Florida. The project supported coastal permitting, water-level determination, and shoreline boundary delineation, utilizing NAVD88 vertical control and NOAA tidal datum interpolation. The work was performed in accordance with Chapter 5J-17, Florida Administrative Code, meeting state standards for professional surveying and mapping.

Kings Highway Roadway Widening - SUE Utility Investigation, Arcadia,

FL: McKim & Creed is supporting the Peace River Manasota Regional Water Supply Authority with Subsurface Utility Engineering (SUE) services for the Kings Highway roadway widening project in Arcadia, Florida, including Quality Level B designation of approximately 10,000 linear feet of 12-inch and 24-inch water mains and six Quality Level A test holes to verify utility conditions. The work includes establishing survey control, retracing alignment and right-of-way, and collecting key topographic features, with deliverables consisting of CAD mapping, test hole reports, and summarized subsurface data to support accurate design and minimize utility conflicts during roadway improvements.

FDOT District 1, Sanibel Island Access - Temporary and Permanent Repairs Ad H1113; FDOT - District 1 Fort Myers, FL:

McKim & Creed conducted a design survey for repairs to support the reconstruction of the Sanibel Island/McGregor Blvd in Fort Myers, Florida. The damage included road and entire bridge abutment washout caused by Hurricane Ian. Tasks included: site reconnaissance and planning using drone & Navis VLX scanning equipment, establishing horizontal & vertical control network, historic alignment retracement, topographic survey supported by conventional field crews, mobile & static scanning, and SUE work to designate and expose utilities along the corridor.